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ELECTRONIC PRINCIPLES ELECTRONIC WARFARE COUNTERMEASURES CAREER--ETC(U)
JUL 77

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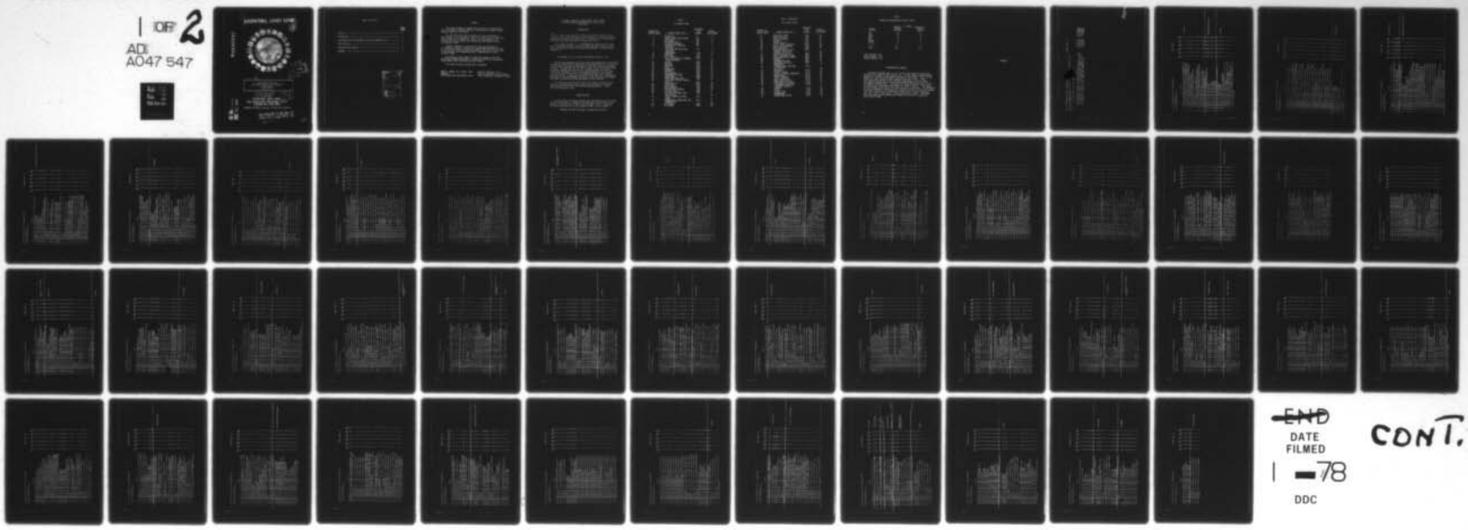

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OCCUPATIONAL SURVEY REPORT.

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ELECTRONIC PRINCIPLES
ELECTRONIC WARFARE COUNTERMEASURES
CAREER LADDER
AFSC 276X1.

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PREFACE

This report presents a summary of the results of a detailed Air Force Electronic Principles Survey of the Electronic Warfare Countermeasures Specialty, AFSC 276X1.

The Electronic Principles Inventory (EPI) was developed by Major Thomas J. O'Connor and Mr. Hendrick W. Ruck and the survey data were analyzed by Mr. Reginald G. Nolte. All are members of the Occupational Survey Branch, USAF Occupational Measurement Center, Lackland AFB, Texas.

Computer programs for analyzing the data were designed by Dr. Raymond E. Christal, Occupational and Manpower Research Division, Air Force Human Resources Laboratory (AFHRL), and were written by the Project Analysis and Programming Branch, Computational Sciences Division, AFHRL.

Distribution of this report is made upon request to the USAF Occupational Measurement Center, attention of the Chief, Occupational Survey Branch (OMY), Lackland AFB, Texas 78236.

This report has been reviewed and is approved.

JAMES A. TURNER, JR., Colonel, USAF Commander USAF Occupational Measurement Center	WALTER E. DRISKILL, Ph.D. Chief, Occupational Survey Branch USAF Occupational Measurement Center

ELECTRONIC PRINCIPLES OCCUPATIONAL SURVEY REPORT
ELECTRONIC WARFARE COUNTERMEASURES CAREER LADDER
AFSC 276X1

INTRODUCTION

This report summarizes the results of the administration of the Electronic Principles Inventory to airmen assigned to Electronic Warfare Countermeasures Specialty (AFSC 276X1). The data for this report were collected during the period March through June 1977.

This report describes: (1) development and administration of the survey instrument; and (2) electronic principles used by DAFSC 7-skill level personnel both CONUS and overseas and assigned to selected major commands.

DEVELOPMENT OF THE ELECTRONIC PRINCIPLES INVENTORY (EPI)

The EPI was developed by personnel from the Occupational Survey Branch who were well qualified in theoretical physics and electronics, as well as in task analysis and survey development. Over 300 maintenance personnel from SAC, TAC, ADC, MAC, and AFCS participated in the development of the inventory. Representing the five ATC training centers, electronics experts who averaged 12 years of maintenance experience and four years of electronic principles instruction experience spent several weeks refining the EPI. In addition, personnel at the Electrical Engineering Department of the USAF Academy and the Air Force Human Resources Laboratory were consulted during the development of the inventory.

The final version of the EPI used in this survey contained 1,257 items in 62 subject matter areas covering all electronic principles training given at the five ATC technical training centers. Table 1 lists the 62 subject areas.

ADMINISTRATION

The Electronic Principles Inventory was administered by mail to AFSC 276X1 airmen worldwide. Responses from 156 individuals represented 42 percent of the total of all AFSC 276X1 personnel. Table 2 shows the percentage distribution by major command of the survey incumbents.

TABLE 1

EPI SUBJECT AREAS

SEQUENCE OF SUBJECT AREAS	SUBJECT AREA TITLE	BEGINNING ITEM NUMBER	GPSUM PAGE NUMBER
1	MATHEMATICS	A1	2
2	DIRECT CURRENT AND VOLTAGE	A15	2
3	RESISTANCE	A24	2
4	MULTIMETER USES	B52	3
5	ALTERNATING CURRENT	B61	4
6	INDUCTORS AND INDUCTIVE REACTANCE	B67	4
7	CAPACITORS AND CAPACITIVE REACTANCE	C92	5
8	TRANSFORMERS	C128	6
9	MAGNETISM	C171	7
10	RCL CIRCUITS	D185	8
11	SERIES AND PARALLEL RESONANCE (TIME CONSTANTS)	D229	10
12	FILTERS	D239	10
13	COUPLING	E261	11
14	SOLDERING	E273	11
15	RELAYS	E294	12
16	MICROPHONES	F314	12
17	SPEAKERS	F327	13
18	OSCILLOSCOPES	F342	13
19	SEMICONDUCTOR DIODES	G354	13
20	TRANSISTORS	G404	15
21	TRANSISTOR AMPLIFIERS	G428	16
22	SOLID-STATE SPECIAL PURPOSE DEVICES	H477	19
23	POWER SUPPLIES	H483	19
24	OSCILLATORS	H512	19
25	MULTIVIBRATORS	I539	20
26	LIMITERS AND CLAMPERS	I555	21
27	ELECTRON TUBES	I565	21
28	ELECTRON TUBE AMPLIFIERS AND CIRCUITS	J609	22
29	SPECIAL PURPOSE ELECTRON TUBES	J616	23
30	HETERODYNING, MODULATION, AND DEMODULATION	J632	23
31	AM SYSTEMS	K638	23
32	FM SYSTEMS	K666	24

TABLE 1 (CONTINUED)

EPI SUBJECT AREAS

SEQUENCE OF SUBJECT AREAS	SUBJECT AREA TITLE	BEGINNING ITEM NUMBER	GPSUM PAGE NUMBER
33	NUMBERING SYSTEMS	K685	25
34	LOGIC FUNCTIONS	L695	25
35	BOOLEAN EQUATIONS	L708	26
36	COUNTERS	L733	27
37	TIMING CIRCUITS	M757	27
38	USE OF SIGNAL GENERATORS	M769	28
39	MOTORS AND GENERATORS	M779	28
40	METER MOVEMENTS	N808	29
41	SATURABLE REACTORS AND MAGNETIC AMPLIFIERS	N818	29
42	WAVESHAPING CIRCUITS	N834	30
43	SINGLE SIDEBAND SYSTEMS	O845	30
44	PULSE MODULATION SYSTEMS	O875	31
45	ANTENNAS	O914	32
46	TRANSMISSION LINES	P953	34
47	WAVEGUIDES AND CAVITY RESONATORS	P984	35
48	MICROWAVE AMPLIFIERS AND OSCILLATORS	P1034	37
49	REGISTERS	Q1110	39
50	STORAGE DEVICES	Q1117	40
51	DIGITAL TO ANALOG CONVERTERS	Q1126	40
52	PHANTASTRONS	Q1140	41
53	SCHMITT TRIGGERS	R1141	41
54	CABLE FABRICATION	R1144	41
55	INPUT/OUTPUT DEVICES	S1146	41
56	PHOTO SENSITIVE DEVICES	S1149	41
57	SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS)	S1150	41
58	INFRARED	T1159	41
59	LASERS	T1186	42
60	DISPLAY TUBES	T1220	43
61	PROGRAMMING	U1234	43
62	DB AND POWER RATIOS	U1255	44

TABLE 2

COMMAND REPRESENTATION OF SURVEY SAMPLE

	276X1	
COMMAND	PERCENT ASSIGNED	PERCENT OF SAMPLE
ADC	85	81
AFCS	6	6
USAFE	3	5
AAC	4	4
AFAFC	0	3
OTHERS	2	1
TOTAL	100	100

Total Assigned - 371
Total Sampled - 156
Percent Sampled - 42%

PRESENTATON OF RESULTS

Personnel responded "yes" or "no" to the 1,257 electronic principles questions as related to their present job. A Group Summary (GPSUM) computer printout is provided in the Appendix portion of this report. Page 1 of the GPSUM lists the 6 selected groups identified for this report. Pages 2-44 show the percentage of the incumbents responding to the EPI items. The computer program results display the percent members answering "yes" to the subject area questions. The reader can locate a specific subject area by referring to the Appendix page number as listed in Table 1. For example, the Transformers area results are given on page 6 of the GPSUM. The percentage of survey respondents indicating use of specific electronic principles ranged from high in areas such as Alternating Current (pp. 4) and Oscilloscopes (pp. 13) to low in areas such as Timing Circuits (pp. 27-28). Additional AFSC 276X1 data can be obtained upon request to the Chief, Occupational Survey Branch (OMY).

APPENDIX

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PCT MBRS RESPONDING 'YES' BY SELECTED GR                                        GPSUM1 PAGE   1

TABULATION OF ELECTRONIC PRINCIPLES UTILIZATION DATA FOR SELECTED GROUPS
IN THE 276X1 CAREER FIELD.

REPORTS ON THE FOLLOWING GROUPS WERE REQUESTED

        GROUP IDENTITY =  SPL001  ALL AIRMEN DAFSC 27671                               CONTAINING   156 MEMBERS.
        GROUP IDENTITY =  SPL002  ALL AIRMEN DAFSC 27671 STATIONED IN CONUS            CONTAINING   125 MEMBERS.
        GROUP IDENTITY =  SPL003  ALL AIRMEN DAFSC 27671 STATIONED OVERSEAS            CONTAINING    31 MEMBERS.
        GROUP IDENTITY =  SPL004  ALL AIRMEN DAFSC 27671 ASSIGNED TO ADC               CONTAINING   120 MEMBERS.
        GROUP IDENTITY =  SPL005  ALL AMN DAFSC 27671 ASSIGNED TO AAC                  CONTAINING     6 MEMBERS.
        GROUP IDENTITY =  SPL006  ALL AMN DAFSC 27671 ASSIGNED TO AFCS                 CONTAINING     9 MEMBERS.
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                   GPSUM1 PAGE   2

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                         SPL  SPL  SPL  SPL  SPL  SPL
                  DY-TSK                                                 001  002  003  004  005  006

A    1 A1-01 IN YOUR PRESENT JOB, DO YOU USE INSTRUMENTS, SUCH AS        10   10    6   11    0    0
           METERS OR OSCILLOSCOPES, IN WHICH IT IS NECESSARY TO                                          MATHEMATICS
A    2 A1-02 DO YOU USE PUBLICATIONS, SUCH AS A TECHNICAL ORDERS          5    5    6    4   17    0
           OR MAINTENANCE MANUALS, IN WHICH IT IS NECESSARY FOR YOU
A    3 A1-03 DO YOU REARRANGE AND SOLVE FORMULAS OR EQUATIONS.            9    7   16    8   50    0
A    4 A1-04 DO YOU CALCULATE THE SQUARE ROOT OF A QUANTITY.              1    1    3    2    0    0
A    5 A1-05 DO YOU SOLVE FOR UNKNOWN QUANTITIES.                         3    3    3    3   17    0
A    6 A1-06 DO YOU CONVERT NUMBERS TO LOGARITHMS.                        1    2    0    2    0    0
A    7 A1-07 DO YOU USE LOGARITHM TABLES IN ANY TYPE OF                   4    3    6    3    0    0
           CALCULATIONS.
A    8 A1-08 DO YOU SOLVE QUADRATIC EQUATIONS.                            0    0    0    0    0    0
A    9 A1-09 DO YOU USE THE NATURAL SYSTEM OF LOGARITHMS.                 1    2    0    2    0    0
A   10 A1-10 DO YOU PERFORM CALCULATIONS ON VECTOR QUANTITIES.            1    2    0    2    0    0
A   11 A1-11 DO YOU WORK WITH TRIGONOMETRIC FUNCTIONS SUCH AS             1    2    0    2    0    0
           SINE, COSINE, OR TANGENT.
A   12 A1-12 DO YOU DETERMINE AREAS OF PLANE FIGURES.                     3    3    3    3    0    0
A   13 A1-13 DO YOU SOLVE OR USE SIMULTANEOUS EQUATIONS.                  2    2    0    2    0    0
A   14 A1-14 DO YOU SOLVE OR USE PROPORTIONS.                             4    4    6    3   17    0
A   15 A2-01 DO YOU USE THE TERM VOLTAGE OR VOLT (V).                    41   41   42   40   50   67
A   16 A2-02 DO YOU USE THE TERM ELECTROMOTIVE FORCE (EMF).              13   14   13   11   17   33
A   17 A2-03 DO YOU USE THE TERM OHM.                                    24   23   29   23   33   44    DIRECT CURRENT AND VOLTAGE
A   18 A2-04 DO YOU USE THE TERM ION.                                     4    5    0    4    0    0
A   19 A2-05 DO YOU USE THE TERM DYNE.                                    4    5    0    4    0    0
A   20 A2-06 DO YOU USE THE TERM AMPERE.                                 26   23   35   22   33   67
A   21 A2-07 DO YOU USE THE TERM NEUTRON.                                 3    3    0    2    0    0
A   22 A2-08 DO YOU USE THE TERM COULOMB.                                 2    2    0    2    0    0
A   23 A2-09 DO YOU USE THE TERM PROTON.                                  3    4    0    3    0    0
A   24 A3-01 DO YOU WORK WITH RESISTORS IN YOUR PRESENT JOB.              3    4    0    2    0    0
A   25 A3-02 DO YOU INSPECT RESISTORS.                                    0    0    0    0    0    0
A   26 A3-03 DO YOU CLEAN RESISTORS.                                      0    0    0    0    0    0
A   27 A3-04 DO YOU ADJUST RESISTORS.                                     1    1    3    1    0    0     RESISTANCE
A   28 A3-05 DO YOU CHECK OHMIC VALUE OR RESISTORS.                       0    0    0    0    0    0
A   29 A3-06 DO YOU REMOVE OR REPLACE RESISTORS.                          0    0    0    0    0    0
A   30 A3-07 DO YOU USE OR REFER TO TEMPERATURE COEFFICIENTS FOR          0    0    0    0    0    0
           RESISTORS ON ANY TASKS YOU PERFORM.
A   31 A3-08 DO YOU USE OR REFER TO RESISTOR SYMBOLS SUCH AS FIXED        1    0    3    1    0    0
           RESISTOR SYMBOLS OR TAPPED RESISTOR SYMBOLS.
A   32 A3-09 DO YOU IDENTIFY OR CLASSIFY THE RESISTORS YOU WORK           1    0    3    1    0    0
           WITH AS CARBON, FIXED WIRE, SLIDE TAP, RHEOSTAT, OR
A   33 A3-10 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE OHMIC         1    1    3    2    0    0
           VALUE OF RESISTANCE.
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                   GPSUM1 PAGE   3

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                 SPL  SPL  SPL  SPL  SPL  SPL
                        DY-TSK                                   001  002  003  004  005  006

A  34 A3-11 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE          0    0    0    0    0    0
        TOLERANCE.
A  35 A3-12 DO YOU USE RESISTOR COLOR CODES WHICH INDICATE          0    0    0    0    0    0
        FAILURE RATE.
A  36 A3-13 DO YOU MAKE DECISIONS IN WHICH YOU MUST DETERMINE HOW   0    0    0    0    0    0
        TWO OR MORE BATTERIES MUST BE CONNECTED TOGETHER TO
A  37 A3-14 DO YOU USE OR REFER TO THE SCHEMATIC SYMBOLS WHICH      3    2    6    2   17    0
        REPRESENT BATTERIES, FUSES, CONDUCTORS, LAMPS, OR SWITCHES
A  38 A3-15 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES            3    3    0    2    0    0
        RESISTIVE CIRCUITS.
A  39 A3-16 DO YOU CALCULATE TOTAL CURRENT FOR SERIES RESISTIVE     3    3    0    2    0    0
        CIRCUITS.
A  40 A3-17 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES    2    2    0    2    0    0
        RESISTIVE CIRCUITS.
A  41 A3-18 DO YOU CALCULATE POWER DISSIPATION FOR SERIES           3    3    0    2    0    0
        RESISTIVE CIRCUITS.
A  42 A3-19 DO YOU CALCULATE TOTAL RESISTANCE FOR SERIES PARALLEL   3    3    0    2    0    0
        RESISTIVE CIRCUITS.
A  43 A3-20 DO YOU CALCULATE TOTAL CURRENT FOR SERIES PARALLEL      3    3    0    2    0    0
        RESISTIVE CIRCUITS.
A  44 A3-21 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR SERIES    2    2    0    2    0    0
        PARALLEL RESISTIVE CIRCUITS.
A  45 A3-22 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR         2    2    0    2    0    0
        SERIES PARALLEL RESISTIVE CIRCUITS.
A  46 A3-23 DO YOU CALCULATE POWER DISSIPATION FOR SERIES           2    2    0    2    0    0
        PARALLEL RESISTIVE CIRCUITS.
A  47 A3-24 DO YOU CALCULATE TOTAL RESISTANCE FOR PARALLEL          3    3    0    2    0    0
        RESISTIVE CIRCUITS.
A  48 A3-25 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RESISTIVE   3    3    0    2    0    0
        CIRCUITS.
A  49 A3-26 DO YOU CALCULATE INDIVIDUAL VOLTAGE DROPS FOR           2    2    0    2    0    0
        PARALLEL RESISTIVE CIRCUITS.
A  50 A3-27 DO YOU CALCULATE INDIVIDUAL BRANCH CURRENTS FOR         2    2    0    2    0    0
        PARALLEL RESISTIVE CIRCUITS.
A  51 A3-28 DO YOU CALCULATE POWER DISSIPATION FOR PARALLEL         2    2    0    2    0    0
        RESISTIVE CIRCUITS.
B  52 B1-01 DO YOU MEASURE RESISTANCE.                              1    2    0    1    0    0
B  53 B1-02 DO YOU REPAIR OHMMETERS.                                0    0    0    0    0    0
B  54 B1-03 DO YOU MEASURE VOLTAGE.                                 5    6    3    6    0    0      MULTIMETER USES
B  55 B1-04 DO YOU REPAIR VOLTMETERS.                               0    0    0    0    0    0
B  56 B1-05 DO YOU REPAIR AMMETERS.                                 0    0    0    0    0    0
B  57 B1-06 DO YOU MEASURE CURRENT.                                 3    3    0    2    0    0
B  58 B1-07 DO YOU USE MULTIMETERS.                                 3    4    0    3    0    0
B  59 B1-08 DO YOU DIRECTLY USE A QUANTITY OF CHARGE CALLED A       0    0    0    0    0    0
        COULOMB.
B  60 B1-09 DO YOU READ SCHEMATICS.                                13    6   32    9   33   44
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PCT MBRS RESPONDING *YES* BY SELECTED GRPS                                        GPSUM1 PAGE   4

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                        SPL  SPL  SPL  SPL  SPL  SPL
                          DY-TSK                                        001  002  003  004  005  006   ALTERNATING CURRENT

B  61 B2-01 DO YOU USE OR REFER TO THE TERM EFFECTIVE VOLTAGE            12   12   10   10   33    0
          (RMS).
B  62 B2-02 DO YOU USE OR REFER TO THE TERM PEAK TO PEAK VOLTAGE.        22   22   23   22   50   11
B  63 B2-03 DO YOU USE OR REFER TO THE TERM AVERAGE VOLTAGE (DC).        24   24   23   23   50   11
B  64 B2-04 DO YOU USE OR REFER TO THE TERM WAVE LENGTH.                 67   67   65   66  100   56
B  65 B2-05 DO YOU USE OR REFER TO THE TERM FREQUENCY.                   72   73   68   72  100   56
B  66 B2-06 DO YOU USE OR REFER TO THE TERM INSTANTANEOUS VALUE.          5    4   10    5   33    0
B  67 B3-01 DO YOU WORK WITH INDUCTORS OR CIRCUITS CONTAINING             2    2    0    1    0    0
          INDUCTORS, CHOKES, OR CHOKE COILS IN YOUR PRESENT JOB.
B  68 B3-02 DO YOU INSPECT INDUCTORS.                                     0    0    0    0    0    0
B  69 B3-03 DO YOU CLEAN INDUCTORS.                                       0    0    0    0    0    0   INDUCTORS AND INDUCTIVE REACTANCE
B  70 B3-04 DO YOU ADJUST INDUCTORS.                                      0    0    0    0    0    0
B  71 B3-05 DO YOU REMOVE OR REPLACE INDUCTORS.                           0    0    0    0    0    0
B  72 B3-06 DO YOU USE OR REFER TO INDUCTANCE.                            1    2    0    0    0    0
B  73 B3-07 DO YOU USE OR REFER TO HENRIES.                               1    1    0    0    0    0
B  74 B3-08 DO YOU USE OR REFER TO INDUCTIVE REACTANCE.                   1    2    0    0    0    0
B  75 B3-09 DO YOU USE OR REFER TO COPPER LOSS IN INDUCTORS.              0    0    0    0    0    0
B  76 B3-10 DO YOU USE OR REFER TO HYSTERESIS LOSS IN INDUCTORS.          0    0    0    0    0    0
B  77 B3-11 DO YOU USE OR REFER TO EDDY CURRENT LOSS IN INDUCTORS         0    0    0    0    0    0
B  78 B3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT                  1    2    0    0    0    0
          INDUCTANCE IS PROPORTIONAL TO THE SQUARE OF THE NUMBER OF
B  79 B2-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE IN-          1    1    0    0    0    0
          DUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE CROSS
B  80 B2-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE              1    1    0    0    0    0
          INDUCTANCE OF A COIL IS INVERSELY PROPORTIONAL TO ITS
B  81 B2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE              0    0    0    0    0    0
          INDUCTANCE OF A COIL IS DIRECTLY PROPORTIONAL TO THE
B  82 B2-16 DO YOU CALCULATE INDUCTANCE FOR PARTICULAR INDUCTORS          1    1    0    0    0    0
          USING FORMULAS.
B  83 B3-17 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTANCE          1    1    0    0    0    0
          IN SERIES.
B  84 B3-18 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS           1    1    0    0    0    0
          IN PARALLEL.
B  85 B3-19 DO YOU CALCULATE THE TOTAL INDUCTANCE FOR INDUCTORS           1    1    0    0    0    0
          IN SERIES-PARALLEL CIRCUITS.
B  86 B3-20 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT          0    0    0    0    0    0
          LAGS VOLTAGE IN AC INDUCTOR CIRCUITS.
B  87 B3-21 DO YOU CALCULATE INDUCTIVE REACTANCE.                         1    1    0    0    0    0
B  88 B3-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT                  1    1    0    0    0    0
          INDUCTIVE REACTANCE IS DIRECTLY PROPORTIONAL TO FREQUENCY.
B  89 B3-23 DO YOU WORK WITH POWER INDUCTORS.                             0    0    0    0    0    0
B  90 B3-24 DO YOU WORK WITH AUDIO FREQUENCY INDUCTORS.                   1    1    0    0    0    0
B  91 B3-25 DO YOU WORK WITH RADIO FREQUENCY INDUCTORS.                   1    1    0    0    0    0
```

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

CAPACITORS AND CAPACITIVE REACTANCE

	DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006
C 92	C1-01 DO YOU WORK WITH CAPACITORS OR CIRCUITS CONTAINING CAPACITORS IN YOUR PRESENT JOB.	4	3	6	2	17	0
C 93	C1-02 DO YOU INSPECT CAPACITORS.	0	0	0	0	0	0
C 94	C1-03 DO YOU CLEAN CAPACITORS.	0	0	0	0	0	0
C 95	C1-04 DO YOU ADJUST CAPACITORS.	0	0	0	0	0	0
C 96	C1-05 DO YOU TEST CAPACITORS.	0	0	0	0	0	0
C 97	C1-06 DO YOU DISCHARGE CAPACITORS.	1	1	0	0	0	0
C 98	C1-07 DO YOU REMOVE OR REPLACE CAPACITORS.	0	0	0	0	0	0
C 99	C1-08 DO YOU USE OR REFER TO DISTRIBUTED CAPACITANCE.	0	0	0	0	0	0
C 100	C1-09 DO YOU USE OR REFER TO ORBITAL STRESS OF ELECTRONS IN A DIELECTRIC.	0	0	0	0	0	0
C 101	C1-10 DO YOU USE OR REFER TO FARADS, MICROFARADS, OR PICOFARADS.	1	1	3	1	0	0
C 102	C1-11 DO YOU USE OR REFER TO CAPACITANCE.	2	2	3	1	0	0
C 103	C1-12 DO YOU USE OR REFER TO DIELECTRIC CONSTANT	0	0	0	0	0	0
C 104	C1-13 DO YOU USE OR REFER TO WORKING VOLTAGE RATING OF CAPACITORS	1	1	0	0	0	0
C 105	C1-14 DO YOU USE OR REFER TO CAPACITIVE REACTANCE	1	1	3	1	0	0
C 106	C1-15 DO YOU USE OR REFER TO CAPACITOR COLOR CODES	0	0	0	0	0	0
C 107	C1-16 DO YOU WORK WITH CAPACITORS IN DC CIRCUITS	2	2	3	1	0	0
C 108	C1-17 DO YOU WORK WITH CAPACITORS IN AC CIRCUITS	3	2	3	2	0	0
C 109	C1-18 DO YOU WORK WITH CAPACITORS IN CIRCUITS WITH BOTH DC AND AC	1	1	3	1	0	0
C 110	C1-19 DO YOU WORK WITH CAPACITORS IN [illegible] WHICH CIRCUITS	1	1	0	1	0	0
C 111	C1-20 DO YOU CALCULATE CAPACITANCE FOR PARTICULAR CAPACITORS USING FORMULAS	1	1	0	0	0	0
C 112	C1-21 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS DIRECTLY PROPORTIONAL TO THE	1	1	0	1	0	0
C 113	C1-22 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITANCE OF A CAPACITOR IS INVERSELY PROPORTIONAL TO	1	1	0	1	0	0
C 114	C1-23 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES	0	0	0	0	0	0
C 115	C1-24 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN PARALLEL	0	0	0	0	0	0
C 116	C1-25 DO YOU CALCULATE THE TOTAL CAPACITANCE OF CAPACITORS IN SERIES-PARALLEL CIRCUITS	0	0	0	0	0	0
C 117	C1-26 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT DOES NOT FLOW THROUGH CAPACITORS, IT ONLY APPEARS TO DO SO	1	1	3	2	0	0
C 118	C1-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT LEADS VOLTAGE IN AC CAPACITOR CIRCUITS	1	1	3	2	0	0
C 119	C1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT CAPACITIVE REACTANCE IS INVERSELY PROPORTIONAL TO	1	1	3	2	0	0
C 120	C1-29 DO YOU CALCULATE CAPACITIVE REACTANCE	0	0	0	0	0	0

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 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                    SPL  SPL  SPL  SPL  SPL  SPL
                     DY-TSK                                         001  002  003  004  005  006

C 121 C1-30 DO YOU WORK WITH ROTOR-STATOR (VARIABLE) CAPACITORS       1    0    3    1    0    0
C 122 C1-31 DO YOU WORK WITH COMPRESSION (TRIMMER) CAPACITORS        0    0    0    0    0    0
C 123 C1-32 DO YOU WORK WITH ELECTROLYTIC (FIXED) CAPACITORS         0    0    0    0    0    0
C 124 C1-33 DO YOU WORK WITH PAPER (FIXED) CAPACITORS                0    0    0    0    0    0
C 125 C1-34 DO YOU WORK WITH MICA (FIXED) CAPACITORS                 0    0    0    0    0    0
C 126 C1-35 DO YOU WORK WITH CERAMIC (FIXED) CAPACITORS              1    1    0    0    0    0
C 127 C1-36 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF            1    2    0    2    0    0
        CAPACITORS
C 128 C2-01 DO YOU WORK WITH TRANSFORMERS IN YOUR PRESENT JOB        1    1    0    1    0    0
C 129 C2-02 DO YOU INSPECT TRANSFORMERS                              0    0    0    0    0    0
C 130 C2-03 DO YOU CLEAN TRANSFORMERS                                0    0    0    0    0    0
C 131 C2-04 DO YOU ADJUST TRANSFORMERS                               0    0    0    0    0    0   TRANSFORMERS
C 132 C2-05 DO YOU TROUBLESHOOT TRANSFORMERS                         0    0    0    0    0    0
C 133 C2-06 DO YOU REMOVE OR REPLACE COMPLETE TRANSFORMERS           0    0    0    0    0    0
C 134 C2-07 DO YOU REMOVE OR REPLACE TRANSFORMER PARTS, SUCH AS      0    C    0    0    0    0
        THE PRIMARY WINDING
C 135 C2-08 DO YOU MAKE A DISTINCTION BETWEEN MUTUAL INDUCTION       0    0    0    0    0    0
        AND MUTUAL INDUCTANCE (M)
C 136 C2-09 DO YOU USE THE SYMBOL FOR MUTUAL INDUCTANCE, M           0    0    0    0    0    0
C 137 C2-10 DO YOU REFER TO OR USE THE COEFFICIENT OF COUPLING       0    0    0    0    0    0
        WHEN WORKING WITH TRANSFORMERS
C 138 C2-11 DO YOU CALCULATE TURNS RATIOS FOR TRANSFORMERS USING     0    0    0    0    0    0
        CURRENT OR VOLTAGE RATIOS
C 139 C2-12 DO YOU REFER TO REFLECTED IMPEDANCE WHEN WORKING WITH    0    0    0    0    0    0
        TRANSFORMERS
C 140 C2-13 DO YOU CALCULATE IMPEDANCE INTERACTIONS FOR              0    0    0    0    0    0
        TRANSFORMERS
C 141 C2-14 DO YOU WORK WITH AUTOTRANSFORMERS                        0    0    0    0    0    0
C 142 C2-15 DO YOU WORK WITH POWER TRANSFORMERS                      0    0    0    0    0    0
C 143 C2-16 DO YOU WORK WITH AUDIO TRANSFORMERS                      0    0    0    0    0    0
C 144 C2-17 DO YOU WORK WITH RADIO FREQUENCY TRANSFORMERS            0    0    0    0    0    0
C 145 C2-18 DO YOU WORK WITH DON'T REMEMBER WHAT TYPE OF             1    1    0    1    0    0
        TRANSFORMERS
C 146 C2-19 DO YOU CHECK TRANSFORMERS FOR OPEN WINDINGS BY           0    0    0    0    0    0
        MEASURING RESISTANCE
C 147 C2-20 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY        0    0    0    0    0    0
        MEASURING RESISTANCE
C 148 C2-21 DO YOU CHECK TRANSFORMERS FOR SHORTED WINDINGS BY        0    0    0    0    0    0
        MEASURING OUTPUT VOLTAGES
C 149 C2-22 DO YOU MEASURE RESISTANCE OF TRANSFORMER WINDINGS TO     0    0    0    0    0    0
        DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR
C 150 C2-23 DO YOU MEASURE OUTPUT VOLTAGE OF TRANSFORMERS TO         0    0    0    0    0    0
        DETERMINE WHETHER A TRANSFORMER HAS A STEP-UP OR STEP-
C 151 C2-24 DO YOU REFER TO BASIC TRANSFORMER SCHEMATIC SYMBOLS      0    0    0    0    0    0
        FOR TRANSFORMERS
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                       GPSUM1 PAGE   7

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                          SPL   SPL   SPL   SPL   SPL   SPL
                         UY-TSK                                           001   002   003   004   005   006

C 152 C2-25 DO YOU REFER TO MULTIPLE SECONDARY-WINDINGS SCHEMATIC           0     0     0     0     0     0
          SYMBOLS FOR TRANSFORMERS
C 153 C2-26 DO YOU REFER TO MULTIPLE TAP SCHEMATIC SYMBOLS FOR              0     0     0     0     0     0
          TRANSFORMERS
C 154 C2-27 DO YOU REFER TO CENTER TAP SCHEMATIC SYMBOLS FOR                0     0     0     0     0     0
          TRANSFORMERS
C 155 C2-28 DO YOU REFER TO AIR CORE SCHEMATIC SYMBOLS FOR                  0     0     0     0     0     0
          TRANSFORMERS
C 156 C2-29 DO YOU REFER TO IRON CORE SCHEMATIC SYMBOLS FOR                 0     0     0     0     0     0
          TRANSFORMERS
C 157 C2-30 DO YOU REFER TO COMBINATIONS OF THE ABOVE SCHEMATIC             0     0     0     0     0     0
          SYMBOLS FOR TRANSFORMERS
C 158 C2-31 DO YOU DETERMINE PHASE RELATIONSHIPS BETWEEN                    0     0     0     0     0     0
          SECONDARY AND PRIMARY VOLTAGES OF TRANSFORMERS USING
C 159 C2-32 DO YOU DETERMINE OR REFER TO THE TYPE OF CORE IN                0     0     0     0     0     0
          TRANSFORMERS YOU WORK WITH
C 160 C2-33 DO YOU REFER TO OR USE THE GENERAL RULE THAT THE                0     0     0     0     0     0
          TURNS RATIO OF A TRANSFORMER IS EQUAL TO THE VOLTAGE RATIO
C 161 C2-34 DO YOU USE OR REFER TO STEP-UP OR STEP-DOWN RATIOS              0     0     0     0     0     0
          FOR TRANSFORMERS
C 162 C2-35 DO YOU CALCULATE VOLTAGE RATIOS FOR TRANSFORMERS                0     0     0     0     0     0
          USING TURNS RATIOS
C 163 C2-36 DO YOU CALCULATE CURRENT RATIOS FOR TRANSFORMERS                0     0     0     0     0     0
          USING TURNS RATIOS
C 164 C2-37 DOES YOUR JOB INVOLVE ANY TASKS DEALING WITH THREE               0     0     0     0     0     0
          PHASE TRANSFORMERS
C 165 C2-38 DO YOU INSPECT THREE PHASE TRANSFORMERS                         0     0     0     0     0     0
C 166 C2-39 DO YOU CLEAN OR LUBRICATE THREE PHASE TRANSFORMERS              0     0     0     0     0     0
C 167 C2-40 DO YOU ADJUST THREE PHASE TRANSFORMERS                          0     0     0     0     0     0
C 168 C2-41 DO YOU TROUBLESHOOT THREE PHASE TRANSFORMERS                    0     0     0     0     0     0
C 169 C2-42 DO YOU REMOVE OR REPLACE COMPLETE THREE PHASE                    0     0     0     0     0     0
          TRANSFORMERS
C 170 C2-43 DO YOU REMOVE OR REPLACE THREE PHASE TRANSFORMER                0     0     0     0     0     0
          PARTS SUCH AS WINDINGS
----------------------------------------------------------------------------------------------------------------
C 171 C3-01 DO YOU USE OR REFER TO PERMANENT MAGNETS                        2     2     3     2     0     0
C 172 C3-02 DO YOU USE OR REFER TO TEMPORARY MAGNETS                        1     1     0     1     0     0
C 173 C3-03 DO YOU USE OR REFER TO RETENTIVITY OF MAGNETIC                  1     1     0     1     0     0        MAGNETISM
          MATERIALS
C 174 C3-04 DO YOU USE OR REFER TO RELUCTANCE OF MAGNETIC                   0     0     0     0     0     0
          MATERIALS
C 175 C3-05 DO YOU USE OR REFER TO PERMEABILITY OF MAGNETIC                 1     1     0     1     0     0
          MATERIALS
C 176 C3-06 DO YOU USE OR REFER TO RESIDUAL MAGNETISM                       1     1     0     1     0     0
C 177 C3-07 DO YOU USE OR REFER TO MAGNETIC LINES OF FORCE OR               5     5     6     6    17     0
          FLUX
C 178 C3-08 DO YOU USE OR REFER TO WEBER'S THEORY OF MAGNETISM              1     1     0     1     0     0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                    GPSUM1 PAGE   8

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                        SPL  SPL  SPL  SPL  SPL  SPL
                      DY-TSK                                            001  002  003  004  005  006

C 179 C3-09 DO YOU USE OR REFER TO DOMAIN THEORY OF MAGNETISM             1    1    0    1    0    0
C 180 C3-10 DO YOU USE OR REFER TO MAGNETIC INDUCTION                     2    2    0    2    0    0
C 181 C3-11 DO YOU USE OR REFER TO FLUX DENSITY                           2    2    0    2    0    0
C 182 C3-12 DO YOU USE OR REFER TO THE GENERAL RULE THAT FOR             12   12   13   13    0   11
          MAGNETIC POLES, LIKE POLES REPEL AND UNLIKE POLES ATTRACT
C 183 C3-13 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE               0    0    0    0    0    0
          DIRECTION OF MAGNETIC FIELDS ABOUT STRAIGHT WIRES
C 184 C3-14 DO YOU USE THE LEFT HAND THUMB RULE TO FIND THE NORTH         0    0    0    0    0    0
          POLE OF A CURRENT CARRYING COIL
D 185 D1-01 DO YOU WORK WITH RC, LR, RCL CIRCUITS IN YOUR                 4    4    6    3   33    0
          PRESENT JOB
D 186 D1-02 DO YOU USE OR REFER TO VECTORS WHEN WORKING WITH RCL          1    1    0    1    0    0   RCL CIRCUITS
          CIRCUITS
D 187 D1-03 DO YOU USE OR REFER TO PYTHAGOREAN THEOREM WHEN               0    0    0    0    0    0
          WORKING WITH RCL CIRCUITS
D 188 D1-04 DO YOU USE OR REFER TO SINE WHEN WORKING WITH RCL             1    0    3    0   17    0
          CIRCUITS
D 189 D1-05 DO YOU USE OR REFER TO COSINE WHEN WORKING WITH RCL           1    0    3    0   17    0
          CIRCUITS
D 190 D1-06 DO YOU USE OR REFER TO TANGENT WHEN WORKING WITH RCL          0    0    0    0    0    0
          CIRCUITS
D 191 D1-07 DO YOU USE OR REFER TO WATTS WHEN WORKING WITH RCL            7    7    6    6   33    0
          CIRCUITS
D 192 D1-08 DO YOU USE OR REFER TO TRUE POWER (PT) WHEN WORKING           3    2    6    1   33    0
          WITH RCL CIRCUITS
D 193 D1-09 DO YOU USE OR REFER TO MAXIMUM POWER (PM) WHEN                6    6    6    6   33    0
          WORKING WITH RCL CIRCUITS
D 194 D1-10 DO YOU USE OR REFER TO AVERAGE POWER (PAVE) WHEN              7    7    6    6   33    0
          WORKING WITH RCL CIRCUITS
D 195 D1-11 DO YOU USE OR REFER TO APPARENT POWER (PA) WHEN               1    1    3    1   17    0
          WORKING WITH RCL CIRCUITS
D 196 D1-12 DO YOU USE OR REFER TO POWER FACTOR (PF) WHEN WORKING         1    1    3    1   17    0
          WITH RCL CIRCUITS
D 197 D1-13 DO YOU USE OR REFER TO RESONANT CIRCUITS WHEN                 1    2    0    1    0    0
          WORKING WITH RCL CIRCUITS
D 198 D1-14 DO YOU USE OR REFER TO BANDWIDTH WHEN WORKING WITH            7    7    6    6   33    0
          RCL CIRCUITS
D 199 D1-15 DO YOU USE OR REFER TO SELECTIVITY WHEN WORKING WITH          6    6    6    5   33    0
          RCL CIRCUITS
D 200 D1-16 DO YOU USE OR REFER TO RESONANT FREQUENCY WHEN                5    5    6    4   33    0
          WORKING WITH RCL CIRCUITS
D 201 D1-17 DO YOU USE OR REFER TO HALF POWER POINTS WHEN                 3    2    3    1   17    0
          WORKING WITH RCL CIRCUITS
D 202 D1-18 DO YOU USE OR REFER TO BANDPASS REGION WHEN WORKING           4    4    3    2   17    0
          WITH RCL CIRCUITS
D 203 D1-19 DO YOU USE OR REFER TO CIRCUIT Q WHEN WORKING WITH            0    0    0    0    0    0
          RCL CIRCUITS
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                          GPSUM1 PAGE    9

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                              SPL   SPL   SPL   SPL   SPL   SPL
                         DY-TSK                                               001   002   003   004   005   006

D 204 01-20 DO YOU USE OR REFER TO TANK CIRCUITS WHEN WORKING                  1     1     0     0     0     0
        WITH RCL CIRCUITS
D 205 01-21 DO YOU DETERMINE VALUES OF TRIGONOMETRIC FUNCTIONS                 0     0     0     0     0     0
        USING FORMULAS
D 206 01-22 DO YOU DRAW VOLTAGE, CURRENT, OR IMPEDANCE VECTOR                  1     1     0     0     0     0
        DIAGRAMS FOR CIRCUITS
D 207 01-23 DO YOU CALCULATE TOTAL IMPEDANCE FOR CAPACITIVE                    0     0     0     0     0     0
        CIRCUITS
D 208 01-24 DO YOU CALCULATE PHASE ANGLES BETWEEN IMPEDANCE AND                0     0     0     0     0     0
        RESISTANCE IN CAPACITIVE CIRCUITS
D 209 01-25 DO YOU CALCULATE TOTAL IMPEDANCE FOR SERIES RCL                    0     0     0     0     0     0
        CIRCUITS
D 210 01-26 DO YOU CALCULATE IMPEDANCE ANGLES FOR SERIES RCL                   0     0     0     0     0     0
        CIRCUITS
D 211 01-27 DO YOU CALCULATE APPARENT POWER (PA) FOR SERIES RCL                0     0     0     0     0     0
        CIRCUITS
D 212 01-28 DO YOU CALCULATE TRUE POWER (PT) FOR SERIES RCL                    1     0     3     0    17     0
        CIRCUITS
D 213 01-29 DO YOU CALCULATE POWER FACTORS (PF) FOR SERIES RCL                 0     0     0     0     0     0
        CIRCUITS
D 214 01-30 DO YOU CALCULATE TOTAL CURRENT FOR PARALLEL RCL                    1     1     0     0     0     0
        CIRCUITS
D 215 01-31 DO YOU CALCULATE IMPEDANCE ANGLES FOR PARALLEL RCL                 0     0     0     0     0     0
        CIRCUITS
D 216 01-32 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL                  0     0     0     0     0     0
        CIRCUITS USING THE ASSUMED VOLTAGE METHOD
D 217 01-33 DO YOU CALCULATE TOTAL IMPEDANCE FOR PARALLEL RCL                  1     1     0     0     0     0
        CIRCUITS USING OHM'S LAW
D 218 01-34 DO YOU CHECK CAPACITORS USING OHMMETERS                            0     0     0     0     0     0
D 219 01-35 DO YOU CHECK CAPACITORS USING SUBSTITUTION                         0     0     0     0     0     0
D 220 01-36 DO YOU CHECK INDUCTORS USING OHMMETERS                             0     0     0     0     0     0
D 221 01-37 DO YOU CHECK INDUCTORS USING SUBSTITUTION                          0     0     0     0     0     0
D 222 01-38 DO YOU USE OR REFER TO THE GENERAL RULE THAT                       0     0     0     0     0     0
        THETA= 0, PF = 1, AND PA = PT FOR RESONANT CIRCUITS
D 223 01-39 DO YOU CALCULATE RESONANT FREQUENCIES FOR RCL                      0     0     0     0     0     0
        CIRCUITS
D 224 01-40 DO YOU USE OR REFER TO THE GENERAL RULE THAT                       0     0     0     0     0     0
        IMPEDANCE IS MINIMUM AND CURRENT MAXIMUM AT THE RESONANT
D 225 01-41 DO YOU USE OR REFER TO THE GENERAL RULE THAT LINE                  0     0     0     0     0     0
        CURRENT IS MINIMUM AND IMPEDANCE MAXIMUM AT RESONANT
D 226 01-42 DO YOU USE OR REFER TO THE GENERAL RULE THAT HALF                  1     1     0     0     0     0
        POWER POINTS ARE AT 70.7 PERCENT OF THE PEAK CURRENT VALUE
D 227 01-43 DO YOU USE OR REFER TO THE GENERAL RULE THAT                       1     1     0     1     0     0
        BANDWIDTH IS INVERSELY PROPORTIONAL TO Q
D 228 01-44 DO YOU DETERMINE HOW CHANGES IN FREQUENCY, RESISTANCE              1     1     0     0     0     0
        , CAPACITANCE, OR INDUCTANCE WILL AFFECT CURRENT OR PHASE
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                    GPSUM1 PAGE  10

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                 SPL  SPL  SPL  SPL  SPL  SPL
                        DY-TSK                                   001  002  003  004  005  006

D 229 D2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH, USE, OR REFER   3    2    6    2   17    0
      TO SERIES OR PARALLEL RESONANT CIRCUITS OR TIME CONSTANTS                                  SERIES AND PARALLEL RESONANCE
D 230 D2-02 DO YOU WORK WITH, USE, OR REFER TO TIME CONSTANTS      3    2    6    2   17    0    (TIME CONSTANTS)
D 231 D2-03 DO YOU WORK WITH, USE, OR REFER TO AVAILABLE VOLTAGE   1    1    3    1   17    0
D 232 D3-04 DO YOU WORK WITH, USE, OR REFER TO TRANSIENT           1    1    3    1   17    0
      INTERVALS
D 233 D2-05 DO YOU USE OR REFER TO THE GENERAL RULE THAT A         1    0    3    1    0    0
      CAPACITOR IS FULLY CHARGED (OR DISCHARGED) AFTER FIVE (5)
D 234 D2-06 DO YOU USE OR REFER TO UNIVERSAL TIME CONSTANT CHARTS  0    0    0    0    0    0
D 235 D2-07 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE          0    0    0    0    0    0
      CIRCUIT CURRENT OR COMPONENT VOLTAGES AFTER A SPECIFIC
D 236 D2-08 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE THE      0    0    0    0    0    0
      TIME REQUIRED FOR CIRCUIT CURRENT OR COMPONENT VOLTAGES TO
D 237 D2-09 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE          0    0    0    0    0    0
      COMPONENT VALUES REQUIRED FOR CIRCUIT CURRENT AND
D 238 D2-10 DO YOU USE OR REFER TO THE GENERAL RULE THAT CURRENT   0    0    0    0    0    0
      IN LR CIRCUITS REACHES ITS MINIMUM VALUE (OR ZERO) AFTER
D 239 D3-01 DO YOU WORK WITH CIRCUITS USED AS FILTERS IN YOUR      1    1    0    1    0    0
      PRESENT JOB
D 240 D3-02 DO YOU INSPECT FILTER CIRCUITS                         0    0    0    0    0    0   FILTERS
D 241 D3-03 DO YOU CLEAN FILTER CIRCUITS                           0    0    0    0    0    0
D 242 D3-04 DO YOU ALIGN OR ADJUST FILTER CIRCUITS                 0    0    0    0    0    0
D 243 D3-05 DO YOU TROUBLESHOOT TO THE FILTER CIRCUIT LEVEL        0    0    0    0    0    0
D 244 D3-06 DO YOU TROUBLESHOOT TO COMPONENT PARTS                 0    0    0    0    0    0
D 245 D3-07 DO YOU REMOVE OR REPLACE THE COMPLETE FILTER CIRCUIT   0    0    0    0    0    0
D 246 D3-08 DO YOU REMOVE OR REPLACE FILTER CIRCUIT COMPONENT      0    0    0    0    0    0
      PARTS
D 247 D3-09 DO YOU WORK WITH LOW PASS FILTERS                      0    0    0    0    0    0
D 248 D3-10 DO YOU WORK WITH HIGH PASS FILTERS                     0    0    0    0    0    0
D 249 D3-11 DO YOU WORK WITH BANDPASS FILTERS                      1    1    0    1    0    0
D 250 D3-12 DO YOU WORK WITH BAND-REJECT FILTERS                   0    0    0    0    0    0
D 251 D3-13 DON'T REMEMBER WHICH TYPE OF FILTER YOU WORK WITH      0    0    0    0    0    0
D 252 D3-14 DO YOU WORK WITH L-SECTION FILTER CONFIGURATION        0    0    0    0    0    0
D 253 D3-15 DO YOU WORK WITH T-SECTION FILTER CONFIGURATION        0    0    0    0    0    0
D 254 D3-16 DO YOU WORK WITH PI-SECTION FILTER CONFIGURATION       0    0    0    0    0    0
D 255 D3-17 DON'T REMEMBER WHICH TYPE FILTER CONFIGURATION         0    0    0    0    0    0
D 256 D3-18 DO THE FILTERS YOU WORK WITH USE PARALLEL RESONANT     0    0    0    0    0    0
      CIRCUITS
D 257 D3-19 DO THE FILTERS YOU WORK WITH USE SERIES-PARALLEL       0    0    0    0    0    0
      CIRCUITS
D 258 D3-20 DO THE FILTERS YOU WORK WITH USE SERIES RESONANT       0    0    0    0    0    0
      CIRCUITS
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 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                              SPL   SPL   SPL   SPL   SPL   SPL
                     DY-TSK                                   001   002   003   004   005   006

D 259 03-21 DON'T REMEMBER WHICH TYPE OF BASIC CIRCUIT         0     0     0     0     0     0
D 260 03-22 DO YOU USE EQUATIONS OR FORMULAS TO DETERMINE      0     0     0     0     0     0
        CAPACITANCE OR INDUCTANCE VALUES REQUIRED FOR SPECIFIC
E 261 E1-01 DO YOU WORK WITH COUPLING DEVICES IN YOUR PRESENT JOB 0  0     0     0     0     0
E 262 E1-02 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO 0    0     0     0     0     0
        THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH RC
E 263 E1-03 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO 0    0     0     0     0     0     COUPLING
        THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
E 264 E1-04 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO 0    0     0     0     0     0
        THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
E 265 E1-05 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS  0    0     0     0     0     0
        WHICH PERFORM RC COUPLING
E 266 E1-06 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS - 0   0     0     0     0     0
        WHICH PERFORM IMPEDANCE COUPLING
E 267 E1-07 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS  0    0     0     0     0     0
        WHICH PERFORM TRANSFORMER COUPLING
E 268 E1-08 DO YOU WORK WITH DIRECTLY COUPLED CIRCUITS          0    0     0     0     0     0
E 269 E1-09 DO YOU WORK WITH CAPACITIVE-RESISTIVE COUPLED       0    0     0     0     0     0
        CIRCUITS
E 270 E1-10 DO YOU WORK WITH CAPACITIVE-INDUCTIVE COUPLED       0    0     0     0     0     0
        CIRCUITS
E 271 E1-11 DO YOU WORK WITH TRANSFORMER COUPLED CIRCUITS       0    0     0     0     0     0
E 272 E1-12 DON'T REMEMBER WHICH TYPE OF COUPLING CIRCUITS      0    0     0     0     0     0
E 273 E2-01 IN YOUR PRESENT JOB, DO YOU PERFORM SOLDERING       0    0     0     0     0     0
        TECHNIQUES OR INSPECT OR EVALUATE SOLDERED CONNECTIONS
E 274 E2-02 DO YOU SELECT TYPE OF SOLDER TO USE                 0    0     0     0     0     0
E 275 E2-03 DO YOU ADD FLUX TO CONNECTIONS                      0    0     0     0     0     0     SOLDERING
E 276 E2-04 DO YOU CLEAN CONNECTIONS USING SOLVENTS             0    0     0     0     0     0
E 277 E2-05 DO YOU STRIP INSULATION FROM WIRES                  0    0     0     0     0     0
E 278 E2-06 DO YOU CONNECT OR DISCONNECT HEAT SINKS             0    0     0     0     0     0
E 279 E2-07 DO YOU BEND OR SHAPE WIRES OR LEADS                 0    0     0     0     0     0
E 280 E2-08 DO YOU CUT WIRES                                    0    0     0     0     0     0
E 281 E2-09 DO YOU FILE OR SHAPE SOLDERING IRON TIPS            0    0     0     0     0     0
E 282 E2-10 DO YOU TIN SOLDERING IRON TIPS                      0    0     0     0     0     0
E 283 E2-11 DO YOU CLEAN SOLDERING IRON TIPS                    0    0     0     0     0     0
E 284 E2-12 DO YOU CLEAN ELECTRICAL SURFACES USING ERASERS      0    0     0     0     0     0
E 285 E2-13 DO YOU TIN OR PRE-TIN CONDUCTORS                    0    0     0     0     0     0
E 286 E2-14 DO YOU INSPECT SOLDERED CONNECTIONS                 0    0     0     0     0     0
E 287 E2-15 DO YOU DESOLDER CONNECTIONS BY WICKING              0    0     0     0     0     0
E 288 E2-16 DO YOU DESOLDER CONNECTIONS USING VACUUM DESOLDERING 0   0     0     0     0     0
        TOOLS
E 289 E2-17 DO YOU CUT COMPONENT LEADS TO REMOVE COMPONENTS     0    0     0     0     0     0
E 290 E2-18 DO YOU CRUSH COMPONENTS FOR REMOVAL                 0    0     0     0     0     0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                         GPSUM1 PAGE  12

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                     SPL  SPL  SPL  SPL  SPL  SPL
                    DY-TSK                                           001  002  003  004  005  006

E 291 E2-19 DO YOU MAKE HARDWIRE CONNECTIONS                          0    0    0    0    0    0
E 292 E2-20 DO YOU MAKE PRINTED CIRCUIT BOARD CONNECTIONS             0    0    0    0    0    0
E 293 E2-21 DO YOU SOLDER PASSIVE COMPONENTS SUCH AS RESISTORS OR     0    0    0    0    0    0
      CAPACITORS ON PRINTED CIRCUIT BOARDS
E 294 E2-22 DO YOU SOLDER ACTIVE COMPONENTS SUCH AS SOLID-STATE       0    0    0    0    0    0
      DIODES OR TRANSISTORS ON PRINTED CIRCUIT BOARDS
E 295 E3-01 DO YOU WORK WITH RELAYS ON YOUR PRESENT JOB               1    2    0    2    0    0      RELAYS
E 296 E3-02 DO YOU ADJUST RELAYS                                      0    0    0    0    0    0
E 297 E3-03 DO YOU CLEAN RELAYS                                       0    0    0    0    0    0
E 298 E3-04 DO YOU INSPECT RELAYS                                     0    0    0    0    0    0
E 299 E3-05 DO YOU REMOVE OR REPLACE COMPLETE RELAYS                  0    0    0    0    0    0
E 300 E3-06 DO YOU REMOVE OR REPLACE PARTS OR RELAYS                  0    0    0    0    0    0
E 301 E3-07 DO YOU TROUBLESHOOT RELAYS                                0    0    0    0    0    0
E 302 E3-08 DO YOU STRAIGHTEN RELAY CONTACTS                          0    0    0    0    0    0
E 303 E3-09 DO YOU PERFORM TASKS ON RELAY CONTACTS                    0    0    0    0    0    0
E 304 E3-10 DO YOU PERFORM TASKS ON RELAY CORES                       0    0    0    0    0    0
E 305 E3-11 DO YOU PERFORM TASKS ON RELAY COILS                       0    0    0    0    0    0
E 306 E3-12 DO YOU PERFORM TASKS ON RELAY ARMATURES                   0    0    0    0    0    0
E 307 E3-13 DO YOU PERFORM TASKS ON RELAY SPRINGS                     0    0    0    0    0    0
E 308 E3-14 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW          0    0    0    0    0    0
      (SPST), NORMALLY OPEN (NO) SCHEMATIC SYMBOLS FOR RELAYS
E 309 E3-15 DO YOU USE OR REFER TO SINGLE POLE, SINGLE THROW          0    0    0    0    0    0
      (SPST), NORMALLY CLOSED (NC) SCHEMATIC SYMBOLS FOR RELAYS
E 310 E3-16 DO YOU USE OR REFER TO SINGLE POLE, DOUBLE THROW          0    0    0    0    0    0
      (SPDT) SCHEMATIC SYMBOLS FOR RELAYS
E 311 E3-17 DO YOU USE OR REFER TO DOUBLE POLE, DOUBLE THROW          0    0    0    0    0    0
      (DPDT) SCHEMATIC SYMBOLS FOR RELAYS
E 312 E3-18 DO YOU USE OR REFER TO OTHER RELAY SYMBOLS SCHEMATIC      0    0    0    0    0    0
      SYMBOLS FOR RELAYS
E 313 E3-19 DO YOU CHECK ELECTRICAL CONTINUITY OF COILS BY            0    0    0    0    0    0
      MEASURING RESISTANCE
F 314 F1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING    18   19   13   17   17   22
      WITH MICROPHONES
F 315 F1-02 DO YOU INSPECT MICROPHONES                                6    8    0    7    0    0
F 316 F1-03 DO YOU CLEAN MICROPHONES                                  4    5    0    4    0    0      MICROPHONES
F 317 F1-04 DO YOU OPERATE MICROPHONES                               20   22   13   20   17   22
F 318 F1-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE               6    6    3    6   17    0
      CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT
F 319 F1-06 DO YOU TROUBLESHOOT DOWN TO MICROPHONE PARTS              0    0    0    0    0    0
F 320 F1-07 DO YOU REMOVE OR REPLACE COMPLETE MICROPHONES             3    4    0    3    0    0
F 321 F1-08 DO YOU REMOVE OR REPLACE MICROPHONE PARTS                 0    0    0    0    0    0
F 322 F1-09 DO YOU PERFORM TASKS ON CARBON MICROPHONES                3    3    0    3    0    0
F 323 F1-10 DO YOU PERFORM TASKS ON CAPACITOR MICROPHONES             1    2    0    2    0    0
F 324 F1-11 DO YOU PERFORM TASKS ON CRYSTAL MICROPHONES               2    2    0    2    0    0
F 325 F1-12 DO YOU PERFORM TASKS ON DYNAMIC MICROPHONES               1    2    0    2    0    0
F 326 F1-13 DO YOU PERFORM TASKS ON VELOCITY RIBBON MICROPHONES       0    0    0    0    0    0
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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006	
F 327 F2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING WITH SPEAKERS	26	29	13	29	0	0	
F 328 F2-02 DO YOU INSPECT SPEAKERS	4	5	0	5	0	0	SPEAKERS
F 329 F2-03 DO YOU CLEAN SPEAKERS	3	3	0	3	0	0	
F 330 F2-04 DO YOU OPERATE SPEAKERS	27	30	13	30	0	0	
F 331 F2-05 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE CONNECTIONS BUT DO NOT TROUBLESHOOT DOWN TO COMPONENT	6	7	0	6	0	0	
F 332 F2-06 DO YOU TROUBLESHOOT DOWN TO SPEAKER PARTS	0	0	0	0	0	0	
F 333 F2-07 DO YOU REMOVE OR REPLACE COMPLETE SPEAKERS	2	2	0	2	0	0	
F 334 F2-08 DO YOU REMOVE OR REPLACE SPEAKER PARTS	0	0	0	0	0	0	
F 335 F2-09 DO YOU PERFORM ANY TASKS ON SPEAKER CONES	1	1	0	1	0	0	
F 336 F2-10 DO YOU PERFORM ANY TASKS ON SPEAKER SPIDERS	0	0	0	0	0	0	
F 337 F2-11 DO YOU PERFORM ANY TASKS ON SPEAKER FIELD COILS	1	1	0	1	0	0	
F 338 F2-12 DO YOU PERFORM ANY TASKS ON SPEAKER VOICE COILS	0	0	0	0	0	0	
F 339 F2-13 DO YOU PERFORM ANY TASKS ON SPEAKER PERMANENT MAGNETS	1	1	0	1	0	0	
F 340 F2-14 DO YOU PERFORM ANY TASKS ON SPEAKER ELECTROMAGNETS	0	0	0	0	0	0	
F 341 F2-15 DO YOU PERFORM ANY TASKS ON SPEAKER SOFT IRON CORES	0	0	0	0	0	0	
F 342 F3-01 DO YOU USE OSCILLOSCOPES IN YOUR PRESENT JOB	31	30	35	30	33	33	
F 343 F3-02 DO YOU USE OSCILLOSCOPES TO PERFORM OPERATIONAL CHECKS	30	29	35	29	33	33	
F 344 F3-03 DO YOU USE OSCILLOSCOPES TO PERFORM ALIGNMENTS OR ADJUSTMENTS	23	23	23	23	0	33	OSCILLOSCOPES
F 345 F3-04 DO YOU USE OSCILLOSCOPES TO TROUBLESHOOT ELECTRONIC CIRCUITS	1	1	3	2	0	0	
F 346 F3-05 DO YOU USE OSCILLOSCOPES TO MEASURE FREQUENCY	15	15	16	16	0	11	
F 347 F3-06 DO YOU USE OSCILLOSCOPES TO MEASURE TIME	14	14	16	14	0	11	
F 348 F3-07 DO YOU USE OSCILLOSCOPES TO OBSERVE LISAJOUS PATTERNS	8	5	19	6	17	22	
F 349 F3-08 DO YOU USE OSCILLOSCOPES TO OBSERVE SIGNALS WHILE UTILIZING ATTENUATOR PROBES	6	6	3	6	0	0	
F 350 F3-09 DO YOU USE OSCILLOSCOPES TO MAKE FREQUENCY OR TIME MEASUREMENTS USING DELAY TIME MULTIPLIERS	6	5	10	5	17	11	
F 351 F3-10 DO YOU USE OSCILLOSCOPES TO MEASURE AC VOLTAGE	8	6	13	7	0	22	
F 352 F3-11 DO YOU USE OSCILLOSCOPES TO MEASURE OR OBSERVE SIGNALS AFTER FIRST ADJUSTING THE GAIN AND DC BAL CONTROLS	20	20	19	20	17	11	
F 353 F3-12 DO YOU USE OSCILLOSCOPES TO MEASURE DC VOLTAGE	8	6	16	7	0	22	
G 354 G1-01 DO YOU WORK WITH SEMICONDUCTOR DIODES IN YOUR PRESENT JOB	1	2	0	1	0	0	
G 355 G1-02 DO YOU INSPECT DIODES	0	0	0	0	0	0	
G 356 G1-03 DO YOU REMOVE OR REPLACE DIODES	0	0	0	0	0	0	SEMICONDUCTOR DIODES
G 357 G1-04 DO YOU CHECK DIODES USING AN INSTRUMENT	0	0	0	0	0	0	
G 358 G1-05 DO YOU USE ENERGY LEVEL DIAGRAMS IN YOUR WORK WITH DIODES	0	0	0	0	0	0	
G 359 G1-06 DO YOU USE PN JUNCTION DIODE CHARACTERISTIC CURVES, TOGETHER WITH VALUES OF FORWARD AND REVERSE BIAS VOLTAGE,	0	0	0	0	0	0	
G 360 G1-07 DO YOU COMPUTE FORWARD OR REVERSE BIAS RESISTANCE FOR DIODES	0	0	0	0	0	0	

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                          GPSUM1 PAGE  14

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                              SPL  SPL  SPL  SPL  SPL  SPL
                        DY-TSK                                                001  002  003  004  005  006

G 361 G1-08 DO YOU USE OR REFER TO THE GENERAL RULE THAT                        0    0    0    0    0    0
        TEMPERATURE CAN AFFECT THE OPERATION OF DIODES
G 362 G1-09 DO YOU IDENTIFY SEMICONDUCTOR DIODES AS OPPOSED TO                  0    0    0    0    0    0
        OTHER ELECTRONIC COMPONENTS, SUCH AS RESISTORS, BASED ON
G 363 G1-10 DO YOU REFER TO OR DO YOU DETERMINE THE GENERAL                     0    0    0    0    0    0
        EFFECTS OF DOPING ON CURRENT FLOW
G 364 G1-11 DO YOU USE OR REFER TO MEASUREMENTS OF FORWARD BIAS                 0    0    0    0    0    0
        RESISTANCE
G 365 G1-12 DO YOU USE OR REFER TO DIODE COLOR CODING                           0    0    0    0    0    0
G 366 G1-13 DO YOU USE OR REFER TO CENTRIFUGAL FORCE OF AN                      0    0    0    0    0    0
        ELECTRON IN ORBIT AROUND A NUCLEUS
G 367 G1-14 DO YOU USE OR REFER TO CENTRIPETAL FORCE OF AN                      0    0    0    0    0    0
        ELECTRON IN ORBIT AROUND A NUCLEUS
G 368 G1-15 DO YOU USE OR REFER TO DIODE NUMBERING SYSTEM, SUCH                 0    0    0    0    0    0
        AS IN 538
G 369 G1-16 DO YOU USE OR REFER TO KINETIC ENERGY OF AN ELECTRON                0    0    0    0    0    0
        MOVING IN ORBIT
G 370 G1-17 DO YOU USE OR REFER TO POTENTIAL ENERGY OF AN                       0    0    0    0    0    0
        ELECTRON MOVING IN ORBIT
G 371 G1-18 DO YOU USE OR REFER TO MEASUREMENTS OF REVERSE BIAS                 0    0    0    0    0    0
        RESISTANCE
G 372 G1-19 DO YOU USE OR REFER TO NUMBER OF ELECTRONS IN A                     0    0    0    0    0    0
        PARTICULAR SHELL OR ORBIT
G 373 G1-20 DO YOU USE OR REFER TO PERMISSIBLE ENERGY LEVELS OF                 0    0    0    0    0    0
        AN ORBITING ELECTRON
G 374 G1-21 DO YOU USE OR REFER TO FORBIDDEN ENERGY LEVELS OF AN                0    0    0    0    0    0
        ORBITING ELECTRON
G 375 G1-22 DO YOU USE OR REFER TO VALENCE ELECTRONS (THOSE IN                  0    0    0    0    0    0
        THE OUTERMOST SHELL)
G 376 G1-23 DO YOU USE OR REFER TO ATOMIC NUMBER (TOTAL NUMBER OF               0    0    0    0    0    0
        ELECTRONS IN ATOM)
G 377 G1-24 DO YOU USE OR REFER TO SYMBOLS ON THE DIODE WHICH                   0    0    0    0    0    0
        INDICATE THE CATHODE END
G 378 G1-25 DO YOU NEED TO KNOW WHICH MATERIALS ARE USED IN THE                 0    0    0    0    0    0
        CONSTRUCTION OF DIODES SUCH AS GERMANIUM OR SILICON
G 379 G1-26 DO YOU NEED TO KNOW THAT SEMICONDUCTORS HAVE NEGATIVE               0    0    0    0    0    0
        TEMPERATURE COEFFICIENTS OF RESISTANCE (AS TEMPERATURE
G 380 G1-27 DO YOU USE OR REFER TO PN JUNCTION DIODE                            0    0    0    0    0    0
        CHARACTERISTIC CURVES, SUCH AS VOLTAGE - CURRENT
G 381 G1-28 DO YOU DETERMINE WHETHER PN JUNCTION DIODES ARE                     0    0    0    0    0    0
        FORWARD BIASED OR REVERSE BIASED WHEN YOU READ OR
G 382 G1-29 DO YOU USE OR REFER TO VALENCE BAND IN SEMICONDUCTOR                0    0    0    0    0    0
        MATERIALS
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PCT MBRS RESPONDING *YES* BY SELECTED GRPS                                       GPSUM1 PAGE  15

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                        SPL  SPL  SPL  SPL  SPL  SPL
                   DY-TSK                                               001  002  003  004  005  006

G 383 G1-30 DO YOU USE OR REFER TO FORBIDDEN BAND IN                      0    0    0    0    0    0
        SEMICONDUCTOR MATERIALS
G 384 G1-31 DO YOU USE OR REFER TO CONDUCTION BAND IN                     0    0    0    0    0    0
        SEMICONDUCTOR MATERIALS
G 385 G1-32 DO YOU USE OR REFER TO COVALENT BONDING IN                    0    0    0    0    0    0
        SEMICONDUCTOR MATERIALS
G 386 G1-33 DO YOU USE OR REFER TO ELECTRON-HOLE PAIR CREATED IN          0    0    0    0    0    0
        SEMICONDUCTORS
G 387 G1-34 DO YOU USE OR REFER TO ELECTRON FLOW OR HOLE FLOW IN          0    0    0    0    0    0
        SEMICONDUCTORS
G 388 G1-35 DO YOU USE OR REFER TO DONOR IMPURITY IN                      0    0    0    0    0    0
        SEMICONDUCTORS
G 389 G1-36 DO YOU USE OR REFER TO ACCEPTOR IMPURITY IN                   0    0    0    0    0    0
        SEMICONDUCTORS
G 390 G1-37 DO YOU USE OR REFER TO P-TYPE SEMICONDUCTOR MATERIAL          0    0    0    0    0    0
G 391 G1-38 DO YOU USE OR REFER TO N-TYPE SEMICONDUCTOR MATERIAL          0    0    0    0    0    0
G 392 G1-39 DO YOU USE OR REFER TO MAJORITY CARRIERS IN                   0    0    0    0    0    0
        SEMICONDUCTORS
G 393 G1-40 DO YOU USE OR REFER TO MINORITY CARRIERS IN                   0    0    0    0    0    0
        SEMICONDUCTORS
G 394 G1-41 DO YOU USE OR REFER TO JUNCTION RECOMBINATION IN               0    0    0    0    0    0
        SEMICONDUCTORS
G 395 G1-42 DO YOU USE OR REFER TO DEPLETION REGION IN                    0    0    0    0    0    0
        SEMICONDUCTORS
G 396 G1-43 DO YOU USE OR REFER TO RELATIONSHIP BETWEEN BARRIER           0    0    0    0    0    0
        WIDTH AND DIFFERENCE OF POTENTIAL
G 397 G1-44 DO YOU USE OR REFER TO THE 10:1 BACK TO FRONT                 0    0    0    0    0    0
        RESISTANCE RATIO FOR DIODES
G 398 G1-45 DO YOU USE OR REFER TO BARRIER HEIGHT IN                      0    0    0    0    0    0
        SEMICONDUCTORS
G 399 G1-46 DO YOU USE OR REFER TO DIODE SUBSTITUTION                     0    0    0    0    0    0
        INFORMATION
G 400 G1-47 DO YOU USE OR REFER TO MAXIMUM AVERAGE FORWARD                0    0    0    0    0    0
        CURRENT DIODE RATINGS
G 401 G1-48 DO YOU USE OR REFER TO PEAK RECURRENT FORWARD CURRENT         0    0    0    0    0    0
        DIODE RATINGS
G 402 G1-49 DO YOU USE OR REFER TO MAXIMUM SURGE CURRENT DIODE            0    0    0    0    0    0
        RATINGS
G 403 G1-50 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE         0    0    0    0    0    0
        DIODE RATINGS
G 404 G2-01 DO YOU WORK WITH TRANSISTORS IN YOUR PRESENT JOB.             1    1    0    1    0    0
G 405 G2-02 DO YOU INSPECT TRANSISTORS                                    0    0    0    0    0    0
G 406 G2-03 DO YOU REMOVE OR REPLACE TRANSISTORS                          0    0    0    0    0    0    TRANSISTORS
G 407 G2-04 DO YOU CHECK TRANSISTORS USING AN INSTRUMENT                  0    0    0    0    0    0
G 408 G2-05 DO YOU USE OR REFER TO EMITTER - BASE (EB) FORWARD            0    0    0    0    0    0
        AND REVERSE RESISTANCE MEASUREMENTS
G 409 G2-06 DO YOU USE OR REFER TO COLLECTOR - BASE (CB) FORWARD          0    0    0    0    0    0
        AND REVERSE RESISTANCE MEASUREMENTS
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                              GPSUM1 PAGE  16

 TASK  GROUP SUMMARY
PERCENT MEMBERS PERFORMING

                                                                                    SPL   SPL   SPL   SPL   SPL   SPL
                         DY-TSK                                                     001   002   003   004   005   006

G 410 G2-07 DO YOU USE OR REFER TO EMITTER - COLLECTOR (EC)                          0     0     0     0     0     0
        RESISTANCE MEASUREMENTS
G 411 G2-08 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE                           0     0     0     0     0     0
        PHYSICAL BARRIER WIDTH OF THE EMITTER - BASE JUNCTION
G 412 G2-09 DO YOU USE OR REFER TO HOW BIASING AFFECTS THE                           0     0     0     0     0     0
        PHYSICAL BARRIER WIDTH OF THE COLLECTOR - BASE JUNCTION
G 413 G2-10 DO YOU USE OR REFER TO THE PHYSICAL SIZE OF THE                          0     0     0     0     0     0
        TRANSISTOR STRUCTURE (COLLECTOR, BASE AND EMITTER)
G 414 G2-11 DO YOU USE OR REFER TO LEAKAGE CURRENT (ICBO) IN A                       0     0     0     0     0     0
        TRANSISTOR
G 415 G2-12 DO YOU USE OR REFER TO TRANSISTOR SCHEMATIC SYMBOLS                      0     0     0     0     0     0
G 416 G2-13 DO YOU USE OR REFER TO TRANSISTOR NOTATION SUCH AS                       0     0     0     0     0     0
        Q1, Q2, Q3, ETC
G 417 G2-14 DO YOU USE OR REFER TO TRANSISTOR SUBSTITUTION                           0     0     0     0     0     0
        INFORMATION
G 418 G2-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE                         0     0     0     0     0     0
        TRANSISTOR BASE CURRENT IB IS NORMALLY SIGNIFICANTLY
G 419 G2-16 DO YOU USE THE INFORMATION THAT THE EFFECT OF EMITTER                    0     0     0     0     0     0
        BASE VOLTAGE ON BASE CURRENT IS THE CONTROLLING FACTOR FOR
G 420 G2-17 DO YOU USE THE GENERAL RULE THAT LEAKAGE CURRENT                         0     0     0     0     0     0
        (ICBO) IN A TRANSISTOR INCREASES AS TEMPERATURE INCREASES
G 421 G2-18 DO YOU USE OR REFER TO TRANSISTOR CHARACTERISTIC                         0     0     0     0     0     0
        CURVES
G 422 G2-19 DO YOU USE OR REFER TO BETA TRANSISTOR GAINS                             0     0     0     0     0     0
G 423 G2-20 DO YOU USE OR REFER TO ALPHA TRANSISTOR GAINS                            0     0     0     0     0     0
G 424 G2-21 DO YOU USE OR REFER TO GAMMA TRANSISTOR GAINS                            0     0     0     0     0     0
G 425 G2-22 DO YOU CALCULATE BETA TRANSISTOR GAINS                                   0     0     0     0     0     0
G 426 G2-23 DO YOU CALCULATE ALPHA TRANSISTOR GAINS                                  0     0     0     0     0     0
G 427 G2-24 DO YOU CALCULATE GAMMA TRANSISTOR GAINS                                  0     0     0     0     0     0
G 428 G3-01 DO YOU WORK WITH TRANSISTOR AMPLIFIERS IN YOUR                           1     2     0     1     0     0
        PRESENT JOB
G 429 G3-02 DO YOU INSPECT TRANSISTOR AMPLIFIERS                                     0     0     0     0     0     0     TRANSISTOR AMPLIFIERS
G 430 G3-03 DO YOU ALIGN OR ADJUST TRANSISTOR AMPLIFIERS                             0     0     0     0     0     0
G 431 G3-04 DO YOU TROUBLESHOOT TO THE AMPLIFIER CIRCUIT LEVEL                       0     0     0     0     0     0
G 432 G3-05 DO YOU TROUBLESHOOT TO AMPLIFIER COMPONENTS                              0     0     0     0     0     0
G 433 G3-06 DO YOU REMOVE OR REPLACE THE COMPLETE AMPLIFIER                          0     0     0     0     0     0
G 434 G3-07 DO YOU REMOVE OR REPLACE AMPLIFIER COMPONENTS                            0     0     0     0     0     0
G 435 G3-08 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN                    0     0     0     0     0     0
        COLLECTOR CURRENT WHICH RESULTS FROM A CHANGE IN BASE
G 436 G3-09 DO YOU USE OR REFER TO (COMMON EMITTER) THE                              0     0     0     0     0     0
        CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
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PCT MBRS RESPONDING .YES. BY SELECTED GRPS                                        GPSUM1 PAGE  17

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                                  SPL  SPL  SPL  SPL  SPL  SPL
                              DY-TSK                                              001  002  003  004  005  006

G 437 G3-10 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN                  0    0    0    0    0    0
          COLLECTOR VOLTAGE WHICH RESULTS FROM A CHANGE IN BASE
G 438 G3-11 DO YOU USE OR REFER TO (COMMON EMITTER) THE                            1    1    0    0    0    0
          CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
G 439 G3-12 DO YOU USE OR REFER TO (COMMON EMITTER) THE CHANGE IN                  1    1    0    0    0    0
          BASE CURRENT WHICH RESULTS FROM AN INPUT SIGNAL
G 440 G3-13 DO YOU USE OR REFER TO (COMMON EMITTER) THE                            1    1    0    0    0    0
          CALCULATIONS NECESSARY TO MEASURE THE SPECIFIC CHANGE IN
G 441 G3-14 DO YOU USE THE LOAD-LINE METHOD OF ANALYSIS IN YOUR                    0    0    0    0    0    0
          CIRCUIT ANALYSIS (THIS METHOD REQUIRES YOU TO PLOT A
G 442 G3-15 DO YOU USE OR REFER TO THE OPERATING POINT Q                           0    0    0    0    0    0
          (QUIESCENT POINT) FOR A TRANSISTOR
G 443 G3-16 DO YOU CALCULATE THE SPECIFIC QUIESCENT POINT FOR A                    0    0    0    0    0    0
          PARTICULAR TRANSISTOR
G 444 G3-17 DO YOU MEASURE VOLTAGE GAIN USED IN THE COMMON                         0    0    0    0    0    0
          EMITTER CONFIGURATION
G 445 G3-18 DO YOU MEASURE CURRENT GAIN USED IN THE COMMON                         0    0    0    0    0    0
          EMITTER CONFIGURATION
G 446 G3-19 DO YOU MEASURE POWER GAIN USED IN THE COMMON                           0    0    0    0    0    0
          EMITTER CONFIGURATION
G 447 G3-20 DO YOU CALCULATE THE VOLTAGE GAIN FOR SPECIFIC TRAN-                   0    0    0    0    0    0
          SISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE CHANGE
G 448 G3-21 DO YOU CALCULATE THE CURRENT GAIN FOR SPECIFIC                         0    0    0    0    0    0
          TRANSISTORS USING A FORMULA THAT IS, DO YOU DIVIDE THE
G 449 G3-22 DO YOU CALCULATE THE POWER GAIN FOR A SPECIFIC                         0    0    0    0    0    0
          TRANSISTOR USING A FORMULA THAT IS, DO YOU MULTIPLY THE
G 450 G3-23 DO YOU NEED TO KNOW THAT MORE COLLECTOR CURRENT IS                     0    0    0    0    0    0
          GENERATED WITH LESS COLLECTOR VOLTAGE AS TEMPERATURE
G 451 G3-24 DO YOU COMPUTE THE STATIC OPERATING POINT (Q) OF A                     0    0    0    0    0    0
          TRANSISTOR AT DIFFERENT TEMPERATURES
G 452 G3-25 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO                    0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 453 G3-26 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO                    0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH SELF-
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TASK  GROUP SUMMARY
PERCENT MEMBERS PERFORMING

                                                                  SPL  SPL  SPL  SPL  SPL  SPL
                       DY-TSK                                     001  002  003  004  005  006

G 454 G3-27 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO     0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 455 G3-28 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO     0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 456 G3-29 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO     0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 457 G3-30 DO YOU IDENTIFY ON SCHEMATIC DIAGRAMS AND RELATE TO     0    0    0    0    0    0
          THE ACTUAL CIRCUITRY THE COMPONENTS ASSOCIATED WITH
G 458 G3-31 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM EMITTER (SWAMPING) RESISTOR STABILIZATION
G 459 G3-32 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM SELF-BIAS STABILIZATION
G 460 G3-33 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM THERMISTOR STABILIZATION
G 461 G3-34 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM FORWARD BIAS DIODE STABILIZATION
G 462 G3-35 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM REVERSE BIAS DIODE STABILIZATION
G 463 G3-36 DO YOU TROUBLESHOOT CIRCUITS WHICH HAVE COMPONENTS      0    0    0    0    0    0
          WHICH PERFORM DOUBLE DIODE STABILIZATION
G 464 G3-37 DO YOU IDENTIFY AMPLITUDE DISTORTION FOR TRANSISTOR     0    0    0    0    0    0
          CIRCUITS
G 465 G3-38 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE     0    0    0    0    0    0
          CAUSES OF AMPLITUDE DISTORTION
G 466 G3-39 DO YOU IDENTIFY FREQUENCY DISTORTION FOR TRANSISTOR     0    0    0    0    0    0
          CIRCUITS
G 467 G3-40 DO YOU IDENTIFY PHASE DISTORTION FOR TRANSISTOR         0    0    0    0    0    0
          CIRCUITS
G 468 G3-41 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE     0    0    0    0    0    0
          CAUSES OF PHASE DISTORTION
G 469 G3-42 DO YOU TROUBLESHOOT TRANSISTOR CIRCUITS TO FIND THE     0    0    0    0    0    0
          CAUSES OF FREQUENCY DISTORTION
G 470 G3-43 DO YOU NEED TO KNOW THE DEGENERATIVE EFFECTS ON THE     0    0    0    0    0    0
          CIRCUIT CAUSED BY CHANGING EMITTER RESISTANCE FOR
G 471 G3-44 DO YOU DETERMINE THE CLASS OF OPERATION FOR             0    0    0    0    0    0
          AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER CIRCUITS
G 472 G3-45 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS      0    0    0    0    0    0
G 473 G3-46 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS      0    0    0    0    0    0
G 474 G3-47 DO YOU TROUBLESHOOT OR REPAIR COMPLEMENTARY SYMMETRY    0    0    0    0    0    0
          CIRCUITS
G 475 G3-48 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED        0    0    0    0    0    0
          AMPLIFIERS
```

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                       GPSUM1 PAGE  19

TASK  GROUP SUMMARY
PERCENT MEMBERS PERFORMING
                                                                          SPL  SPL  SPL  SPL  SPL  SPL
                         DY-TSK                                           001  002  003  004  005  006

G 476 G3-49 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED                 0    0    0    0    0    0
        AMPLIFIERS
------------------------------------------------------------------------------------------------------
H 477 H1-01 DO YOU USE OR REFER TO VARACTORS                                1    0    3    0    0    0
H 478 H1-02 DO YOU USE OR REFER TO TUNNEL DIODES                            0    0    0    0    0    0
H 479 H1-03 DO YOU USE OR REFER TO FIELD EFFECT TRANSISTORS (FET)           1    0    3    0    0    0   SOLID-STATE SPECIAL PURPOSE
H 480 H1-04 DO YOU USE OR REFER TO UNIJUNCTION TRANSISTORS                  1    0    3    0    0    0   DEVICES
H 481 H1-05 DO YOU USE OR REFER TO ZENER DIODES                             1    1    3    1   17    0
H 482 H1-06 DO YOU USE OR REFER TO INTEGRATED CIRCUITS                      8    8   10    9   17    0
------------------------------------------------------------------------------------------------------
H 483 H2-01 IN YOUR PRESENT JOB, DO YOU WORK WITH POWER SUPPLIES            1    2    0    2    0    0
H 484 H2-02 DO YOU INSPECT POWER SUPPLIES                                   0    0    0    0    0    0
H 485 H2-03 DO YOU CLEAN POWER SUPPLIES                                     0    0    0    0    0    0   POWER SUPPLIES
H 486 H2-04 DO YOU ALIGN OR ADJUST POWER SUPPLIES                           0    0    0    0    0    0
H 487 H2-05 DO YOU TROUBLESHOOT TO POWER SUPPLY CIRCUIT LEVEL               0    0    0    0    0    0
H 488 H2-06 DO YOU TROUBLESHOOT TO POWER SUPPLY COMPONENTS                  0    0    0    0    0    0
H 489 H2-07 DO YOU REMOVE OR REPLACE COMPLETE POWER SUPPLIES                0    0    0    0    0    0
H 490 H2-08 DO YOU REMOVE OR REPLACE POWER SUPPLY COMPONENTS                0    0    0    0    0    0
H 491 H2-09 DO YOU WORK WITH HALF-WAVE RECTIFIERS                           0    0    0    0    0    0
H 492 H2-10 DO YOU WORK WITH FULL-WAVE RECTIFIERS OTHER THAN                0    0    0    0    0    0
        BRIDGE RECTIFIERS
H 493 H2-11 DO YOU WORK WITH BRIDGE RECTIFIERS                              0    0    0    0    0    0
H 494 H2-12 DO YOU WORK WITH THREE-PHASE RECTIFIERS                         0    0    0    0    0    0
H 495 H2-13 DO YOU USE OR REFER TO INPUT VOLTAGE                            0    0    0    0    0    0
H 496 H2-14 DO YOU USE OR REFER TO INPUT FREQUENCY                          1    1    0    1    0    0
H 497 H2-15 DO YOU USE OR REFER TO PEAK OUTPUT VOLTAGE                      1    2    0    2    0    0
H 498 H2-16 DO YOU USE OR REFER TO AVERAGE OUTPUT VOLTAGE                   1    2    0    2    0    0
H 499 H2-17 DO YOU USE OR REFER TO RIPPLE AMPLITUDE                         0    0    0    0    0    0
H 500 H2-18 DO YOU USE OR REFER TO RIPPLE FREQUENCY                         0    0    0    0    0    0
H 501 H2-19 DO YOU USE OR REFER TO PEAK REVERSE (INVERSE) VOLTAGE           0    0    0    0    0    0
H 502 H2-20 DO YOU USE OR REFER TO SHAPE OF OUTPUT WAVEFORMS                1    1    0    1    0    0
H 503 H2-21 DO YOU USE OR REFER TO EFFECTIVE OUTPUT VOLTAGE                 1    1    0    1    0    0
H 504 H2-22 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE               1    2    0    2    0    0
        FILTERS
H 505 H2-23 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE                1    2    0    2    0    0
        FILTERS
H 506 H2-24 DO YOU WORK WITH CIRCUITS WHICH EMPLOY CAPACITIVE               0    0    0    0    0    0
        INPUT L-TYPE FILTERS
H 507 H2-25 DO YOU WORK WITH CIRCUITS WHICH EMPLOY INDUCTIVE                0    0    0    0    0    0
        INPUT L-TYPE FILTERS
H 508 H2-26 DO YOU WORK WITH CIRCUITS WHICH EMPLOY LC PI-TYPE               0    0    0    0    0    0
        FILTERS
H 509 H2-27 DO YOU WORK WITH CIRCUITS WHICH EMPLOY RC PI-TYPE               0    0    0    0    0    0
        FILTERS
H 510 H2-28 DO YOU WORK WITH CIRCUITS WHICH EMPLOY DON'T                    0    0    0    0    0    0
        REMEMBER WHICH TYPE OF FILTER
H 511 H2-29 DO YOU HAVE THE OPTION OF REPLACING ONE TYPE OF                 0    0    0    0    0    0
        FILTER WITH A DIFFERENT TYPE FILTER
------------------------------------------------------------------------------------------------------
H 512 H3-01 DO YOU WORK WITH OSCILLATORS IN YOUR PRESENT JOB               10   11    3   10    0    0

                                                                                                        OSCILLATORS
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                      GPSUM1 PAGE  20

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                       SPL  SPL  SPL  SPL  SPL  SPL
                  DY-TSK                                               001  002  003  004  005  006

H 513 H3-02 DO YOU INSPECT OSCILLATORS                                   0    0    0    0    0    0
H 514 H3-03 DO YOU ALIGN OR ADJUST OSCILLATORS                           3    4    0    4    0    0
H 515 H3-04 DO YOU REMOVE OR REPLACE COMPLETE OSCILLATORS                0    0    0    0    0    0
H 516 H3-05 DO YOU REMOVE OR REPLACE OSCILLATOR COMPONENTS               0    0    0    0    0    0
H 517 H3-06 DO YOU TROUBLESHOOT TO OSCILLATOR CIRCUIT LEVEL              0    0    0    0    0    0
H 518 H3-07 DO YOU TROUBLESHOOT TO OSCILLATOR COMPONENTS                 0    0    0    0    0    0
H 519 H3-08 DO YOU USE OR REFER TO FEEDBACK                              4    4    3    5    0    0
H 520 H3-09 DO YOU USE OR REFER TO FREQUENCY DETERMINING DEVICES         7    8    3    7    0    0
      (FDD)
H 521 H3-10 DO YOU USE OR REFER TO AMPLITUDE STABILITY                   5    6    3    6    0    0
H 522 H3-11 DO YOU USE OR REFER TO FREQUENCY STABILITY                   8   10    3    9    0    0
H 523 H3-12 DO YOU USE OR REFER TO DAMPING                               2    2    3    2    0    0
H 524 H3-13 DO YOU USE OR REFER TO REGENERATIVE FEEDBACK                 3    2    3    2    0    0
H 525 H3-14 DO YOU USE OR REFER TO PIEZOELECTRIC EFFECT                  1    1    0    1    0    0
H 526 H3-15 DO YOU USE OR REFER TO CRITICAL DAMPING                      1    1    0    1    0    0
H 527 H3-16 DO YOU USE OR REFER TO UNDER DAMPING                         1    1    3    2    0    0
H 528 H3-17 DO YOU USE OR REFER TO OVER DAMPING                          1    1    3    2    0    0
H 529 H3-18 DO YOU WORK WITH OSCILLATORS WHICH USE LC TANK               3    2    3    3    0    0
      CIRCUITS AS FDD
H 530 H3-19 DO YOU WORK WITH OSCILLATORS WHICH USE RC NETWORKS AS        3    2    3    3    0    0
      FDD
H 531 H3-20 DO YOU WORK WITH OSCILLATORS WHICH USE CRYSTALS AS           5    6    3    6    0    0
      FDD
H 532 H3-21 DO YOU WORK WITH OSCILLATORS WHICH USE DON'T REMEMBER        1    2    0    2    0    0
      WHICH TYPE OF FDD
H 533 H3-22 DO YOU WORK WITH SERIES HARTLEY SINUSOIDAL                   2    2    3    2    0    0
      OSCILLATORS
H 534 H3-23 DO YOU WORK WITH SHUNT HARTLEY SINUSOIDAL OSCILLATORS        2    2    3    2    0    0
H 535 H3-24 DO YOU WORK WITH COLPITTS SINUSOIDAL OSCILLATORS             1    1    3    2    0    0
H 536 H3-25 DO YOU WORK WITH CLAPP SINUSOIDAL OSCILLATORS                0    0    0    0    0    0
H 537 H3-26 DO YOU WORK WITH BUTLER SINUSOIDAL OSCILLATORS               0    0    0    0    0    0
H 538 H3-27 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE OF                2    2    0    2    0    0
      OSCILLATORS
I 539 I1-01 DO YOU WORK WITH MULTIVIBRATORS IN YOUR PRESENT JOB          1    0    3    1    0    0
I 540 I1-02 DO YOU INSPECT WAVE GENERATING OR SHAPING CIRCUITS           0    0    0    0    0    0
I 541 I1-03 DO YOU ALIGN OR ADJUST WAVE GENERATING OR SHAPING            0    0    0    0    0    0
      CIRCUITS
I 542 I1-04 DO YOU CALIBRATE WAVE GENERATING OR SHAPING CIRCUITS         0    0    0    0    0    0      MULTIVIBRATORS
I 543 I1-05 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING            0    0    0    0    0    0
      CIRCUITS
I 544 I1-06 DO YOU TROUBLESHOOT TO WAVE GENERATING OR SHAPING            0    0    0    0    0    0
      CIRCUIT COMPONENTS
I 545 I1-07 DO YOU REMOVE OR REPLACE COMPLETE WAVE GENERATING OR         0    0    0    0    0    0
      SHAPING CIRCUITS
I 546 I1-08 DO YOU REMOVE OR REPLACE WAVE GENERATING OR SHAPING          0    0    0    0    0    0
      COMPONENTS
I 547 I1-09 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN LC TANK        1    0    3    1    0    0
      CIRCUITS
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                              GPSUMI PAGE  21

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                   SPL  SPL  SPL  SPL  SPL  SPL
                    DY-TSK                                         001  002  003  004  005  006

I 548 11-10 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN RC         1    0    3    1    0    0
        NETWORKS
I 549 11-11 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN            1    0    3    1    0    0
        CRYSTALS
I 550 11-12 DO YOU WORK WITH MULTIVIBRATORS WHICH CONTAIN DON'T      0    0    0    0    0    0
        REMEMBER WHICH TYPE OF FDD
I 551 11-13 DO YOU WORK WITH ASTABLE MULTIVIBRATORS                  1    0    3    1    0    0
I 552 11-14 DO YOU WORK WITH MONOSTABLE MULTIVIBRATORS               1    0    3    1    0    0
I 553 11-15 DO YOU WORK WITH BISTABLE MULTIVIBRATORS                 1    0    3    1    0    0
I 554 11-16 DO YOU WORK WITH DON'T REMEMBER WHICH TYPE               0    0    0    0    0    0
        MULTIVIBRATORS
-----------------------------------------------------------------------------------------------------------
I 555 12-01 DO YOU WORK WITH LIMITERS OR CLAMPERS IN YOUR            2    2    0    2    0    0
        PRESENT JOB
I 556 12-02 DO YOU WORK WITH SERIES DIODE LIMITERS                   0    0    0    0    0    0
I 557 12-03 DO YOU WORK WITH SHUNT DIODE LIMITERS                    0    0    0    0    0    0    LIMITERS AND CLAMPERS
I 558 12-04 DO YOU WORK WITH LIMITERS WITH BIAS                      0    0    0    0    0    0
I 559 12-05 DO YOU WORK WITH ZENER DIODE LIMITERS                    0    0    0    0    0    0
I 560 12-06 DO YOU WORK WITH TRANSISTOR LIMITERS                     0    0    0    0    0    0
I 561 12-07 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF LIMITERS       1    1    0    1    0    0
I 562 12-08 DO YOU WORK WITH BASIC DIODE CLAMPING CIRCUITS           0    0    0    0    0    0
I 563 12-09 DO YOU WORK WITH DIODE CLAMPING CIRCUITS WITH BIAS       0    0    0    0    0    0
I 564 12-10 DO YOU WORK WITH DON'T KNOW WHICH TYPE OF CLAMPING       0    0    0    0    0    0
        CIRCUIT
-----------------------------------------------------------------------------------------------------------
I 565 13-01 IN YOUR PRESENT JOB, DO YOU WORK ON EQUIPMENT WHICH      4    3    6    2    0    0
        CONTAINS ELECTRON TUBES
I 566 13-02 DO YOU CHECK ELECTRON TUBES TO SEE IF THEY ARE GOOD      1    1    0    0    0    0
I 567 13-03 DO YOU USE TUBE TESTERS TO CHECK ELECTRON TUBES          0    0    0    0    0    0    ELECTRON TUBES
I 568 13-04 DO YOU USE MULTIMETERS TO CHECK ELECTRON TUBES           1    1    0    0    0    0
I 569 13-05 DO YOU USE SCOPES TO CHECK ELECTRON TUBES                1    1    0    0    0    0
I 570 13-06 DO YOU USE SUBSTITUTION TO CHECK ELECTRON TUBES          0    0    0    0    0    0
I 571 13-07 DO YOU USE OR REFER TO CUTOFF                            0    0    0    0    0    0
I 572 13-08 DO YOU USE OR REFER TO PEAK INVERSE VOLTAGE RATING       0    0    0    0    0    0
I 573 13-09 DO YOU USE OR REFER TO PEAK CURRENT RATING               0    0    0    0    0    0
I 574 13-10 DO YOU USE OR REFER TO TRANSIT TIME                      0    0    0    0    0    0
I 575 13-11 DO YOU USE OR REFER TO PLATE DISSIPATION RATING          0    0    0    0    0    0
I 576 13-12 DO YOU USE OR REFER TO SATURATION                        1    2    0    1    0    0
I 577 13-13 DO YOU USE OR REFER TO DC PLATE RESISTANCE               0    0    0    0    0    0
I 578 13-14 DO YOU COMPUTE ACTUAL VALUES OF THE DC PLATE             1    1    0    1    0    0
        RESISTANCE FOR ELECTRON TUBES
I 579 13-15 DO YOU USE OR REFER TO PLATE VOLTAGE                     1    1    0    1    0    0
I 580 13-16 DO YOU USE OR REFER TO PLATE CURRENT                     1    1    0    1    0    0
I 581 13-17 DO YOU USE OR REFER TO GRID VOLTAGE                      1    1    0    1    0    0
I 582 13-18 DO YOU USE OR REFER TO GRID CURRENT                      1    1    0    1    0    0
I 583 13-19 DO YOU USE OR REFER TO CATHODE VOLTAGE                   1    1    0    1    0    0
I 584 13-20 DO YOU USE OR REFER TO CATHODE CURRENT                   1    1    0    1    0    0
I 585 13-21 DO YOU USE OR REFER TO THE TRIODE AMPLIFICATION          0    0    0    0    0    0
        FACTOR (THE AMPLIFICATION FACTOR FOR TRIODES IS DEFINED AS
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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006
I	586	13-22 DO YOU CALCULATE ACTUAL VALUES OF TRIODE AMPLIFICATION FACTORS	0	0	0	0	0	0
I	587	13-23 DO YOU USE OR REFER TO MULTIGRID (TETRODE, PENTODE, ETC) AMPLIFICATION FACTORS	0	0	0	0	0	0
I	588	13-24 DO YOU USE OR REFER TO ELECTRON TUBE TRANSCONDUCTANCE (G, WHICH IS MEASURED IN MHOS)	0	0	0	0	0	0
I	589	13-25 DO YOU CALCULATE ACTUAL VALUES OF ELECTRON TUBE TRANSCONDUCTANCES	0	0	0	0	0	0
I	590	13-26 DO YOU USE OR REFER TO THE ELECTRON TUBE PARAMETER CALLED AC PLATE RESISTANCE	0	0	0	0	0	0
I	591	13-27 DO YOU CALCULATE ACTUAL VALUES OF AC PLATE RESISTANCE	0	0	0	0	0	0
I	592	13-28 DO YOU USE OR REFER TO ELECTRON TUBE INTERELECTRODE CAPACITANCE	0	0	0	0	0	0
I	593	13-29 DO YOU USE OR REFER TO CHARACTERISTIC CURVES IN YOUR WORK WITH ELECTRON TUBES	0	0	0	0	0	0
I	594	13-30 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE VOLTAGE FOR A SPECIFIED BIAS	0	0	0	0	0	0
I	595	13-31 DO YOU USE CHARACTERISTIC CURVES TO SELECT PLATE CURRENT FOR A SPECIFIED BIAS	0	0	0	0	0	0
I	596	13-32 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR CUTOFF	1	1	0	0	0	0
I	597	13-33 DO YOU USE CHARACTERISTIC CURVES TO SELECT BIAS REQUIRED FOR SATURATION	0	0	0	0	0	0
I	598	13-34 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER GAIN	2	1	6	0	0	0
I	599	13-35 DO YOU USE OR REFER TO ELECTRON TUBE AMPLIFIER EFFICIENCY	1	0	3	0	0	0
I	600	13-36 DO YOU USE TEST TUBE CHECKERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0
I	601	13-37 DO YOU USE MULTIMETERS TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	1	1	0	0	0	0
I	602	13-38 DO YOU USE OSCILLOSCOPES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	1	1	0	0	0	0
I	603	13-39 DO YOU USE CHARACTERISTIC CURVES TO DETERMINE ELECTRON TUBE AMPLIFIER GAIN	0	0	0	0	0	0
I	604	13-40 DO YOU CALCULATE ANY ELECTRON TUBE CAPACITANCES SUCH AS INPUT CAPACITANCE	0	0	0	0	0	0
I	605	13-41 DO YOU USE OR REFER TO TUBE SOCKET NOTATION	0	0	0	0	0	0
I	606	13-42 DO YOU USE OR REFER TO PIN NUMBERING SYSTEMS	0	0	0	0	0	0
I	607	13-43 DO YOU USE OR REFER TO THE TYPE OF MATERIAL OR THE OPERATING TEMPERATURE OF THE EMITTING SURFACE IN THE	0	0	0	0	0	0
I	608	13-44 DO YOU USE OR REFER TO TUBE SUBSTITUTION MATERIAL SUCH AS MANUALS OR CHARTS	0	0	0	0	0	0
J	609	J1-01 DO YOU WORK WITH ELECTRON TUBE AMPLIFIERS OR CIRCUITS IN YOUR PRESENT JOB	1	2	0	2	0	0
J	610	J1-02 DO YOU DETERMINE THE CLASS OF OPERATION FOR ELECTRON TUBE AMPLIFIERS IN ORDER TO TROUBLESHOOT AMPLIFIER	0	0	0	0	0	0

ELECTRON TUBE AMPLIFIERS
AND CIRCUITS

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                          GPSUM1 PAGE  23

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                               SPL  SPL  SPL  SPL  SPL  SPL
                         DY-TSK                                                001  002  003  004  005  006

J 611 J1-03 DO YOU TROUBLESHOOT OR REPAIR PARAPHASE AMPLIFIERS                   0    0    0    0    0    0
J 612 J1-04 DO YOU TROUBLESHOOT OR REPAIR PUSH-PULL AMPLIFIERS                   0    0    0    0    0    0
J 613 J1-05 DO YOU TROUBLESHOOT OR REPAIR COMPOUND-CONNECTED                     0    0    0    0    0    0
            AMPLIFIERS
J 614 J1-06 DO YOU TROUBLESHOOT OR REPAIR CASCADE-CONNECTED                      0    0    0    0    0    0
            AMPLIFIERS
J 615 J1-07 DO YOU TROUBLESHOOT OR REPAIR DON'T KNOW WHICH TYPE                  0    0    0    0    0    0
            OF AMPLIFIER
J 616 J2-01 DO YOU WORK WITH GAS TUBES (HOT CATHODE OR COLD                      3    4    0    3    0    0
            CATHODE)
J 617 J2-02 DO YOU WORK WITH CATHODE-RAY TUBES                                  13   14   10   13   17    0     SPECIAL PURPOSE ELECTRON TUBES
J 618 J2-03 DO YOU USE OR REFER TO THE CHARACTERISTICS OF BEAM                   1    1    0    1    0    0
            POWER TUBES
J 619 J2-04 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH BEAM                 0    0    0    0    0    0
            POWER TUBES ARE USED
J 620 J2-05 DO YOU USE OR REFER TO THE CHARACTERISTICS OF                        3    2    6    1   17    0
            THYRATRONS
J 621 J2-06 DO YOU TROUBLESHOOT OR REPAIR CIRCUITS IN WHICH                      0    0    0    0    0    0
            THYRATHONS ARE USED
J 622 J2-07 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF                8    8    6    7    0    0
            ELECTRON GUNS OF CATHODE-RAY TUBES (CRT)
J 623 J2-08 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF                5    6    3    6    0    0
            ELECTROMAGNETIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES
J 624 J2-09 DO YOU USE OR REFER TO THE PRINCIPLES OF OPERATION OF                5    6    3    6    0    0
            ELECTROSTATIC DEFLECTION SYSTEMS OF CATHODE-RAY TUBES
J 625 J2-10 DO YOU USE OR REFER TO PHOSPHOR SCREENS                              8    8    6    8    0    0
J 626 J2-11 DO YOU USE OR REFER TO AQUADAG COATINGS                              3    4    0    4    0    0
J 627 J2-12 DO YOU USE OR REFER TO ELECTRON OPTICS                               0    0    0    0    0    0
J 628 J2-13 DO YOU USE OR REFER TO PERSISTENCE                                   6    6   10    6    0    0
J 629 J2-14 DO YOU USE OR REFER TO DECAY TIMES                                   3    2    3    2    0    0
J 630 J2-15 DO YOU USE OR REFER TO FLUORESCENCE                                  6    7    0    6    0    0
J 631 J2-16 DO YOU USE OR REFER TO PHOSPHORESCENCE                               6    7    3    6    0    0
J 632 J3-01 DO YOU WORK ON TRANSMIT OR RECEIVE SYSTEMS IN YOUR                   6    4   16    4   17   22
            PRESENT JOB
J 633 J3-02 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS                         1    1    0    1    0    0
J 634 J3-03 DO YOU PERFORM TASKS ON FREQUENCY MIXERS                             1    1    0    1    0    0     HETERODYNING, MODULATION, AND
J 635 J3-04 DO YOU USE OR REFER TO THE HETERODYNING OF SIGNALS                   4    2   13    2    0   22     DEMODULATION
            IN YOUR WORK WITH TRANSMIT OR RECEIVE SYSTEMS
J 636 J3-05 DO YOU PERFORM TASKS ON REACTANCE MODULATORS                         1    1    3    1    0   11
J 637 J3-06 DO YOU PERFORM TASKS ON MODULATED OSCILLATORS                        1    1    3    1    0   11
K 638 K1-01 DO YOU WORK ON AM TRANSMIT OR RECEIVE SYSTEMS IN YOUR                3    2    3    2    0    0
            PRESENT JOB
K 639 K1-02 DO YOU INSPECT AM TRANSMIT OR RECEIVE SYSTEMS                        0    0    0    0    0    0
K 640 K1-03 DO YOU CLEAN AM TRANSMIT OR RECEIVE SYSTEMS                          0    0    0    0    0    0     AM SYSTEMS
K 641 K1-04 DO YOU ALIGN OR ADJUST AM TRANSMIT OR RECEIVE SYSTEMS                0    0    0    0    0    0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                  GPSUMI PAGE  24

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                  SPL  SPL  SPL  SPL  SPL  SPL
                    DY-TSK                                        001  002  003  004  005  006

K 642 K1-05 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE SYSTEMS   0    0    0    0    0    0
K 643 K1-06 DO YOU TROUBLESHOOT TO AM TRANSMIT OR RECEIVE           0    0    0    0    0    0
      COMPONENTS
K 644 K1-07 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE         0    0    0    0    0    0
      SYSTEMS
K 645 K1-08 DO YOU REMOVE OR REPLACE AM TRANSMIT OR RECEIVE         0    0    0    0    0    0
      COMPONENTS
K 646 K1-09 DO YOU PERFORM TASKS ON RF OSCILLATORS                  1    1    0    1    0    0
K 647 K1-10 DO YOU PERFORM TASKS ON RF AMPLIFIERS                   1    2    0    2    0    0
K 648 K1-11 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS                1    1    0    1    0    0
K 649 K1-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS                1    1    0    1    0    0
K 650 K1-13 DO YOU PERFORM TASKS ON LOCAL OSCILLATORS               1    2    0    2    0    0
K 651 K1-14 DO YOU PERFORM TASKS ON IF AMPLIFIERS                   1    2    0    2    0    0
K 652 K1-15 DO YOU PERFORM TASKS ON DETECTORS                       2    2    3    2    0    0
K 653 K1-16 DO YOU PERFORM TASKS ON DON'T REMEMBER WHICH AM STAGE   0    0    0    0    0    0
K 654 K1-17 DO YOU USE OR REFER TO AMPLITUDE STABILIZATION IN       1    1    3    1    0   11
      TRANSMITTERS
K 655 K1-18 DO YOU USE OR REFER TO FREQUENCY STABILIZATION IN       1    1    3    1    0   11
      TRANSMITTERS
K 656 K1-19 DO YOU USE OR REFER TO SENSITIVITY OF RECEIVERS         4    3    6    3    0   11
K 657 K1-20 DO YOU USE OR REFER TO SELECTIVITY OF RECEIVERS         4    3    6    3    0   11
K 658 K1-21 DO YOU USE OR REFER TO 2ND HARMONIC DISTORTION          1    1    3    1    0   11
K 659 K1-22 DO YOU USE OR REFER TO BANDPASS DISTORTION              1    1    0    1    0    0
K 660 K1-23 DO YOU USE OR REFER TO SQUARE LAW DISTORTION            0    0    0    0    0    0
K 661 K1-24 DO YOU USE OR REFER TO CO-CHANNEL INTERFERENCE          3    3    0    3    0    0
K 662 K1-25 DO YOU USE OR REFER TO IMAGE FREQUENCIES IN RECEIVERS   3    2    6    2    0   11
K 663 K1-26 DO YOU USE OR REFER TO SIGNAL TO IMAGE RATIOS OR        3    3    3    3    0    0
      IMAGE REJECTION RATIOS
K 664 K1-27 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM        1    1    0    1    0    0
      TRANSMITTER SCHEMATIC DIAGRAMS
K 665 K1-28 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH AM        1    1    0    1    0    0
      RECEIVER SCHEMATIC DIAGRAMS
K 666 K2-01 DO YOU WORK WITH FM TRANSMIT OR RECEIVE SYSTEMS IN      5    4   10    4    0   22
      YOUR PRESENT JOB
K 667 K2-02 DO YOU INSPECT FM TRANSMIT OR RECEIVE SYSTEMS           0    0    0    0    0    0
K 668 K2-03 DO YOU CLEAN FM TRANSMIT OR RECEIVE SYSTEMS             0    0    0    0    0    0     FM SYSTEMS
K 669 K2-04 DO YOU ALIGN FM TRANSMIT OR RECEIVE SYSTEMS             0    0    0    0    0    0
K 670 K2-05 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE           1    0    3    0    0    0
      SYSTEMS
K 671 K2-06 DO YOU TROUBLESHOOT TO FM TRANSMIT OR RECEIVE           0    0    0    0    0    0
      COMPONENTS
K 672 K2-07 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE         0    0    0    0    0    0
      SYSTEMS
K 673 K2-08 DO YOU REMOVE OR REPLACE FM TRANSMIT OR RECEIVE         0    0    0    0    0    0
      COMPONENTS
K 674 K2-09 DO YOU PERFORM TASKS ON AUDIO AMPLIFIERS                1    1    0    1    0    0
K 675 K2-10 DO YOU PERFORM TASKS ON FREQUENCY MULTIPLIERS           1    1    0    1    0    0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                        GPSUM1 PAGE  25

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                      SPL  SPL  SPL  SPL  SPL  SPL
                         DY-TSK                                       001  002  003  004  005  006

K 676 K2-11 DO YOU PERFORM TASKS ON DRIVERS (INTERMEDIATE               0    0    0    0    0    0
        AMPLIFIERS)
K 677 K2-12 DO YOU PERFORM TASKS ON POWER AMPLIFIERS                    0    0    0    0    0    0
K 678 K2-13 DO YOU PERFORM TASKS ON RF AMPLIFIERS                       1    2    0    2    0    0
K 679 K2-14 DO YOU PERFORM TASKS ON FREQUENCY CONVERTERS                0    0    0    0    0    0
K 680 K2-15 DO YOU PERFORM TASKS ON IF AMPLIFIERS                       1    2    0    2    0    0
K 681 K2-16 DO YOU PERFORM TASKS ON LIMITERS                            1    2    0    2    0    0
K 682 K2-17 DO YOU PERFORM TASKS ON FREQUENCY DISCRIMINATORS            1    2    0    2    0    0
K 683 K2-18 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH               3    1   10    1    0   22
        SCHEMATIC DIAGRAMS OF FM TRANSMITTERS
K 684 K2-19 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH               3    1   10    1    0   22
        SCHEMATIC DIAGRAMS OF FM RECEIVERS
K 685 K3-01 DO YOU CONVERT DECIMAL (BASE 10) NUMBERS TO OCTAL           4    5    3    5    0    0
        (BASE 8) NUMBERS
K 686 K3-02 DO YOU CONVERT DECIMAL NUMBERS TO BINARY (BASE 2)          12   14    0   13    0    0       NUMBERING SYSTEMS
        NUMBERS
K 687 K3-03 DO YOU CONVERT OCTAL NUMBERS TO DECIMAL NUMBERS             4    4    3    4    0    0
K 688 K3-04 DO YOU CONVERT OCTAL NUMBERS TO BINARY NUMBERS              4    6    0    6    0    0
K 689 K3-05 DO YOU CONVERT BINARY NUMBERS TO DECIMAL NUMBERS           10   13    0   12    0    0
K 690 K3-06 DO YOU CONVERT BINARY NUMBERS TO OCTAL NUMBERS              5    6    0    6    0    0
K 691 K3-07 DO YOU ADD BINARY NUMBERS TO GET A SUM                      7    9    0    8    0    0
K 692 K3-08 DO YOU SUBRRACT BINARY NUMBERS USING THE END-AROUND-        4    5    0    5    0    0
        CARRY METHOD
K 693 K3-09 DO YOU SUBTRACT BINARY NUMBERS USING THE DIRECT             4    6    0    6    0    0
        SUBTRACTION METHOD
K 694 K3-10 DO YOU ADD OCTAL NUMBERS TO GET A SUM                       4    5    3    5    0    0
L 695 L1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS               4    3   10    3    0   22
        RELATING TO LOGIC FUNCTIONS
L 696 L1-02 DO YOU CONSTRUCT TRUTH TABLES FOR AND LOGIC SYMBOLS         1    1    0    1    0    0       LOGIC FUNCTIONS
        OR GATES
L 697 L1-03 DO YOU CONSTRUCT TRUTH TABLES FOR OR LOGIC SYMBOLS          1    1    0    1    0    0
        OR GATES
L 698 L1-04 DO YOU CONSTRUCT TRUTH TABLES FOR AND OR OR LOGIC           1    1    0    1    0    0
        SYMBOLS WITH STATE INDICATORS
L 699 L1-05 DO YOU CONSTRUCT TRUTH TABLES FOR EXCLUSIVE OR LOGIC        0    0    0    0    0    0
        SYMBOLS OR GATES
L 700 L1-06 DO YOU USE OR REFER TO TRUTH TABLES FOR AND LOGIC           2    2    3    2    0   11
        SYMBOLS OR GATES
L 701 K1-07 DO YOU USE OR REFER TO TRUTH TABLES FOR OR LOGIC            2    2    3    2    0   11
        SYMBOLS OR GATES
L 702 K1-08 DO YOU USE OR REFER TO TRUTH TABLES FOR AND OR OR           1    1    3    1    0   11
        LOGIC SYMBOLS WITH STATE INDICATORS
L 703 L1-09 DO YOU USE OR REFER TO TRUTH TABLES FOR EXCLUSIVE OR        1    2    0    2    0    0
        LOGIC SYMBOLS
L 704 L1-10 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR AND GATES          3    2    6    2    0   22
L 705 L1-11 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR OR GATES           3    2    6    2    0   22
L 706 L1-12 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR NAND OR NOR        1    1    0    1    0    0
        GATES
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                        GPSUMI PAGE  26

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                   SPL  SPL  SPL  SPL  SPL  SPL
                      BY-TSK                                       001  002  003  004  005  006

L 707 L1-13 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR EXCLUSIVE      1    2    0    2    0    0
      OR GATES
L 708 L2-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS           0    0    0    0    0    0
        RELATING TO BOOLEAN EQUATIONS, LOGIC DIAGRAMS, OR LOGIC
L 709 L2-02 DO YOU DRAW LOGIC SYMBOLS FOR DIRECT COUPLED            0    0    0    0    0    0     BOOLEAN EQUATIONS
        TRANSISTOR LOGIC (DCTL) CIRCUITS
L 710 L2-03 DO YOU CONSTRUCT TRUTH TABLES FOR CURRENT MODE LOGIC    0    0    0    0    0    0
        (CML) CIRCUITS
L 711 L2-04 DO YOU DRAW LOGIC DIAGRAMS FROM GIVEN BOOLEAN           0    0    0    0    0    0
        EQUATIONS
L 712 L2-05 DO YOU MEASURE INPUTS OR OUTPUTS OF LOGIC GATES         0    0    0    0    0    0
L 713 L2-06 DO YOU DEVELOP OR ANALYZE BOOLEAN EQUATIONS IN THE      0    0    0    0    0    0
        PROCESS OF TROUBLESHOOTING DIGITAL CIRCUITS
L 714 L2-07 DO YOU ANALYZE LOGIC CIRCUITS BY USING BOOLEAN          0    0    0    0    0    0
        ALGEBRA
L 715 L2-08 DO YOU USE OR REFER TO LOGIC SYMBOLS FOR DIRECT         0    0    0    0    0    0
        COUPLED TRANSISTOR LOGIC (DCTL) CIRCUIT GATES
L 716 L2-09 DO YOU USE OR REFER TO TRUTH TABLES FOR CURRENT MODE    0    0    0    0    0    0
        LOGIC (CML) CIRCUITS
L 717 L2-10 DO YOU USE OR REFER TO LOGIC DIAGRAMS CONSISTING OF     0    0    0    0    0    0
        MORE THAN ONE GATE
L 718 L2-11 DO YOU COMPUTE SUM AND CARRY EXPRESSIONS FOR SERIAL     0    0    0    0    0    0
        HALF OR FULL ADDER LOGIC DIAGRAMS
L 719 L2-12 DO YOU TRACE DATA FLOW THROUGH PARALLEL FULL ADDER      0    0    0    0    0    0
        LOGIC DIAGRAMS
L 720 L2-13 DO YOU WORK WITH ASTABLE (FREE RUNNING)                 0    0    0    0    0    0
        MULTIVIBRATORS
L 721 L2-14 DO YOU WORK WITH BISTABLE (FLIP-FLOP) MULTIVIBRATORS    0    0    0    0    0    0
L 722 L2-15 DO YOU WORK WITH MONOSTABLE (ONE-SHOT)                  0    0    0    0    0    0
        MULTIVIBRATORS
L 723 L2-16 DO YOU USE OR REFER TO FLIP-FLOP MULTIVIBRATOR          0    0    0    0    0    0
        SYMBOLS
L 724 L2-17 DO YOU USE OR REFER TO SINGLE-SHOT MULTIVIBRATOR        0    0    0    0    0    0
        SYMBOLS
L 725 L2-18 DO YOU USE OR REFER TO FLIP-FLOP CIRCUIT DIAGRAMS       0    0    0    0    0    0
L 726 L2-19 DO YOU USE OR REFER TO FLIP-FLOP TRUTH TABLES           0    0    0    0    0    0
L 727 L2-20 DO YOU USE OR REFER TO COMPLEMENTED FLIP-FLOP           0    0    0    0    0    0
        LOGIC SYMBOLS
L 728 L2-21 DO YOU USE OR REFER TO COMPLEMENTING FLIP-FLOP LOGIC    0    0    0    0    0    0
        SYMBOLS
L 729 L2-22 DO YOU MEASURE OUTPUT WAVESHAPES OF LOGIC CIRCUITS      0    0    0    0    0    0
L 730 L2-23 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTED FLIP-FLOP   0    0    0    0    0    0
        SCHEMATIC DIAGRAMS
L 731 L2-24 DO YOU TRACE DATA FLOW THROUGH COMPLEMENTING FLIP-      0    0    0    0    0    0
        FLOP SCHEMATIC DIAGRAMS
L 732 L2-25 DO YOU CONSTRUCT TRUTH TABLES FOR J-K FLIP-FLOP         0    0    0    0    0    0
        LOGIC SYMBOLS
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 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                    SPL  SPL  SPL  SPL  SPL  SPL
                     DY-TSK                                         001  002  003  004  005  006

L 733 L3-01 DO YOU WORK WITH DIGITAL COUNTERS IN YOUR PRESENT JOB   24   28    6   28    0   11
L 734 L3-02 DO YOU USE OR REFER TO UP-COUNTERS                      17   21    3   21    0    0
L 735 L3-03 DO YOU USE OR REFER TO DOWN-COUNTERS                     4    5    3    5    0    0    COUNTERS
L 736 L3-04 DO YOU USE OR REFER TO SERIAL COUNTERS                   5    6    0    6    0    0
L 737 L3-05 DO YOU USE OR REFER TO PARALLEL COUNTERS                 2    2    0    2    0    0
L 738 L3-06 DO YOU USE OR REFER TO RING COUNTERS                     1    2    0    2    0    0
L 739 L3-07 DO YOU USE OR REFER TO DECADE COUNTERS                   3    3    0    3    0    0
L 740 L3-08 DO YOU USE OR REFER TO COUNT DETECT CIRCUITS             3    3    0    3    0    0
L 741 L3-09 DO YOU USE OR REFER TO DOWN CLOCKS                       1    2    0    2    0    0
L 742 L3-10 DO YOU USE OR REFER TO UP CLOCKS                         4    5    0    5    0    0
L 743 L3-11 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         0    0    0    0    0    0
          UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS
L 744 L3-12 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         1    1    0    1    0    0
          SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENTING FLIP-
L 745 L3-13 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         1    1    0    1    0    0
          DECADE COUNTERS
L 746 L3-14 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         0    0    0    0    0    0
          RING COUNTERS
L 747 L3-15 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         0    0    0    0    0    0
          SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE REGISTER
L 748 L3-16 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         0    0    0    0    0    0
          SHIFT REGISTERS
L 749 L3-17 DO YOU TRACE DATA FLOW THROUGH LOGIC DIAGRAMS OF         1    2    0    2    0    0
          OTHER TYPE OF COUNTERS
L 750 L3-18 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT     0    0    0    0    0    0
          PULSES FOR UP-COUNTERS HAVING COMPLEMENTED FLIP-FLOPS
L 751 L3-19 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT     0    0    0    0    0    0
          PULSES FOR SERIAL UP- OR DOWN-COUNTERS HAVING COMPLEMENT-
L 752 L3-20 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT     0    0    0    0    0    0
          PULSES FOR SERIAL UP-COUNTERS FEEDING A PARALLEL STORAGE
L 753 L3-21 DO YOU COMPUTE THE BINARY COUNT AFTER SPECIFIC INPUT     1    1    0    1    0    0
          PULSES FOR OTHER TYPES OF COUNTERS
L 754 L3-22 DO YOU CONSTRUCT TRUTH TABLES FROM LOGIC DIAGRAMS OF     0    0    0    0    0    0
          DECADE COUNTERS
L 755 L3-23 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP IN RING     0    0    0    0    0    0
          COUNTERS FOR SPECIFIC INPUT PULSES
L 756 L3-24 DO YOU DETERMINE THE APPROPRIATE AND GATE NECESSARY      0    0    0    0    0    0
          IN COUNT DETECT CIRCUITS TO INDICATE A REQUIRED COUNT
M 757 M1-01 DO YOU WORK WITH SAWTOOTH WAVE GENERATORS                3    3    0    2    0    0
M 758 M1-02 DO YOU WORK WITH TRAPEZOIDAL WAVE GENERATORS             3    3    0    2    0    0
M 759 M1-03 DO YOU WORK WITH PULSED OSCILLATORS WITH REGENERATIVE    3    3    3    4    0    0    TIMING CIRCUITS
          FEEDBACK
M 760 M1-04 DO YOU WORK WITH PULSED OSCILLATORS WITHOUT              3    3    0    3    0    0
          REGENERATIVE FEEDBACK
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                              GPSUM1 PAGE  28

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                          SPL  SPL  SPL  SPL  SPL  SPL
                         DY-TSK                                           001  002  003  004  005  006

M 761 M1-05 DO YOU WORK WITH BLOCKING OSCILLATORS                           4    5    3    6    0    0
M 762 M1-06 DO YOU USE OR REFER TO RISE TIME                                1    0    3    0    0    0
M 763 M1-07 DO YOU USE OR REFER TO FALL OR FLYBACK TIME                     2    2    3    2    0    0
M 764 M1-08 DO YOU USE OR REFER TO SWEEP TIME                              12   13    6   13    0    0
M 765 M1-09 DO YOU USE OR REFER TO ELECTRICAL LENGTH OF SAWTOOTH            3    2    3    2    0    0
      WAVEFORMS
M 766 M1-10 DO YOU USE OR REFER TO PHYSICAL LENGTH OF SAWTOOTH              1    1    3    1    0    0
      WAVEFORMS
M 767 M1-11 DO YOU USE OR REFER TO LINEAR SLOPE OF SAWTOOTH                 3    2    6    3    0    0
      WAVEFORMS
M 768 M1-12 DO YOU USE OR REFER TO GATE LENGTH OF SAWTOOTH                  3    3    3    3    0    0
      WAVEFORMS
----------------------------------------------------------------------------------------------------------
M 769 M2-01 DO YOU USE SIGNAL GENERATORS IN YOUR PRESENT JOB               15   17    6   16   17    0
M 770 M2-02 DO YOU PERFORM OPERATIONAL CHECKS WHILE USING SIGNAL           13   14    6   13   17    0
      GENERATORS
M 771 M2-03 DO YOU PERFORM PERIODIC MAINTENANCE SUCH AS                     9   11    0   10    0    0    USE OF SIGNAL GENERATORS
      ADJUSTING, ALIGNING, OR CALIBRATING WHILE USING SIGNAL
M 772 M2-04 DO YOU TROUBLESHOOT TO AN ASSEMBLY OR SUBASSEMBLY               1    1    0    1    0    0
      WHILE USING SIGNAL GENERATORS
M 773 M2-05 DO YOU TROUBLESHOOT TO THE SMALLEST REPLACEABLE                 1    1    0    1    0    0
      COMPONENT WHILE USING SIGNAL GENERATORS
M 774 M2-06 DO YOU USE AUDIO SINE-WAVE GENERATORS                           3    3    0    3    0    0
M 775 M2-07 DO YOU USE AUDIO NON-SINUSOIDAL WAVE GENERATORS SUCH            3    4    0    4    0    0
      AS SQUARE WAVE, TRIANGLE, PULSE, OR SPIKE
M 776 M2-08 DO YOU USE RF GENERATORS LESS THAN 1,000 MH                     4    6    0    5    0    0
M 777 M2-09 DO YOU USE RF GENERATORS GREATER THAN 1,000 MH                  6    6    3    6   17    0
M 778 M2-10 DO YOU USE OTHER SPECIAL PURPOSE OR MULTI-FUNCTION             10   13    0   13    0    0
      GENERATORS
----------------------------------------------------------------------------------------------------------
M 779 M3-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY TASKS DEALING           1    1    0    1    0    0
      WITH ALTERNATING CURRENT OR DIRECT CURRENT MOTORS OR
M 780 M3-02 DO YOU INSPECT MOTORS                                           0    0    0    0    0    0
M 781 M3-03 DO YOU CLEAN OR LUBRICATE MOTORS                                0    0    0    0    0    0    MOTORS AND GENERATORS
M 782 M3-04 DO YOU OPERATE MOTORS                                           0    0    0    0    0    0
M 783 M3-05 DO YOU REMOVE OR REPLACE COMPLETE MOTORS                        0    0    0    0    0    0
M 784 M3-06 DO YOU REMOVE OR REPLACE MOTOR PARTS                            0    0    0    0    0    0
M 785 M3-07 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE                     0    0    0    0    0    0
      CONNECTIONS OF MOTORS
M 786 M3-08 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF MOTORS           0    0    0    0    0    0
M 787 M3-09 DO YOU PERFORM ANY TASKS ON FIELD COILS                         0    0    0    0    0    0
M 788 M3-10 DO YOU PERFORM ANY TASKS ON ARMATURES                           0    0    0    0    0    0
M 789 M3-11 DO YOU PERFORM ANY TASKS ON ROTORS                              0    0    0    0    0    0
M 790 M3-12 DO YOU PERFORM ANY TASKS ON BRUSHES                             0    0    0    0    0    0
M 791 M3-13 DO YOU PERFORM ANY TASKS ON SLIP RINGS                          0    0    0    0    0    0
M 792 M3-14 DO YOU PERFORM ANY TASKS ON COMMUTATORS                         0    0    0    0    0    0
M 793 M3-15 DO YOU PERFORM ANY TASKS ON POLE PIECES                         0    0    0    0    0    0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                              GPSUM1 PAGE  29

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                        SPL   SPL   SPL   SPL   SPL   SPL
                     DY-TSK                                             001   002   003   004   005   006

M 794 M3-16 DO YOU DETERMINE OR MEASURE THE MAGNITUDE OF THE             0     0     0     0     0     0
          FORCE OR TORQUE CREATED BY A MOTOR
M 795 M3-17 DO YOU DETERMINE OR MEASURE THE DIRECTION OF THE             0     0     0     0     0     0
          MECHANICAL FORCE OR TORQUE CREATED BY A MOTOR
M 796 M3-18 DO YOU DETERMINE OR MEASURE THE MAGNITUDE                    0     0     0     0     0     0
          OR DIRECTION OF THE INDUCED VOLTAGE IN MOTORS
M 797 M3-19 DO YOU WORK WITH SYNCHRONOUS MOTORS                          0     0     0     0     0     0
M 798 M3-20 DO YOU WORK WITH INDUCTION MOTORS                            0     0     0     0     0     0
M 799 M3-21 DO YOU WORK WITH SPLIT-PHASE MOTORS                          0     0     0     0     0     0
M 800 M3-22 DO YOU WORK WITH SOME COMBINATION OF THE ABOVE MOTORS        0     0     0     0     0     0
M 801 M3-23 DO YOU INSPECT GENERATORS                                    0     0     0     0     0     0
M 802 M3-24 DO YOU CLEAN OR LUBRICATE GENERATORS                         0     0     0     0     0     0
M 803 M3-25 DO YOU OPERATE GENERATORS                                    1     1     0     1     0     0
M 804 M3-26 DO YOU REMOVE OR REPLACE COMPLETE GENERATORS                 0     0     0     0     0     0
M 805 M3-27 DO YOU REMOVE OR REPLACE GENERATOR PARTS                     0     0     0     0     0     0
M 806 M3-28 DO YOU TROUBLESHOOT AS FAR AS CHECKING WIRE                  0     0     0     0     0     0
          CONNECTIONS OF GENERATORS
M 807 M3-29 DO YOU TROUBLESHOOT DOWN TO COMPONENT PARTS OF               0     0     0     0     0     0
          GENERATORS
-------------------------------------------------------------------------------------------------------------
N 808 N1-01 DO YOU WORK WITH METERS IN YOUR PRESENT JOB                 11    11    10    11    17    11
N 809 N1-02 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF            0     0     0     0     0     0
          PERMANENT MAGNETS
N 810 N1-03 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF            0     0     0     0     0     0      METER MOVEMENTS
          MOVING COILS
N 811 N1-04 DO YOU CONCEPTUALIZE OR CONSIDER THE FUNCTIONS OF            1     1     0     1     0     0
          SPIRAL SPRINGS
N 812 N1-05 DO YOU READ METER SCALES                                    12    12    10    12    17    11
N 813 N1-06 DO YOU EXTEND THE RANGE OF AMMETERS                          1     1     0     1     0     0
N 814 N1-07 DO YOU ZERO OHMMETERS                                        1     1     0     1     0     0
N 815 N1-08 DO YOU ZERO AMMETERS                                         1     2     0     2     0     0
N 816 N1-09 DO YOU EXTEND THE RANGE OF VOLTMETERS                        1     2     0     2     0     0
N 817 N1-10 DO YOU USE OR REFER TO VOLTMETER SENSITIVITY                 4     5     0     5     0     0
          (EXPRESSED IN UNITS OF OHMS PER VOLT)
-------------------------------------------------------------------------------------------------------------
N 818 N2-01 DO YOU WORK WITH SATURABLE REACTORS OR MAGNETIC              0     0     0     0     0     0
          AMPLIFIERS IN YOUR PRESENT JOB
N 819 N2-02 DO YOU INSPECT MAGNETIC AMPLIFIERS OR SATURABLE              0     0     0     0     0     0      SATURABLE REACTORS AND MAGNETIC
          REACTORS                                                                                            AMPLIFIERS
N 820 N2-03 DO YOU CLEAN MAGNETIC AMPLIFIERS OR SATURABLE                0     0     0     0     0     0
          REACTORS
N 821 N2-04 DO YOU ADJUST MAGNETIC AMPLIFIERS OR SATURABLE               0     0     0     0     0     0
          REACTORS
N 822 N2-05 DO YOU TROUBLESHOOT MAGNETIC AMPLIFIERS OR SATURABLE         0     0     0     0     0     0
          REACTORS
N 823 N2-06 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIERS OR              0     0     0     0     0     0
          SATURABLE REACTORS
N 824 N2-07 DO YOU REMOVE OR REPLACE MAGNETIC AMPLIFIER OR               0     0     0     0     0     0
          SATURABLE REACTOR COMPONENTS
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TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

		DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006	
N	825	N2-08 DO YOU USE OR REFER TO HYSTERESIS CURVES OR LOOPS	0	0	0	0	0	0	
N	826	N2-09 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF	0	0	0	0	0	0	
N	827	N2-10 DO YOU MEASURE OUTPUT WAVEFORMS ACROSS REACTOR WINDINGS OR LOAD RESISTORS OF SINGLE WINDING SATURABLE	0	0	0	0	0	0	
N	828	N2-11 DO YOU INTERPRET SCHEMATIC DRAWINGS TO DEVELOP OUTPUT WAVEFORMS FOR MAGNETIC AMPLIFIERS	1	1	0	1	0	0	
N	829	N2-12 DO YOU USE OR REFER TO COERCIVE FORCE IN SATURABLE REACTORS	0	0	0	0	0	0	
N	830	N2-13 DO YOU USE OR REFER TO RESIDUAL MAGNETISM IN SATURABLE REACTORS	0	0	0	0	0	0	
N	831	N2-14 DO YOU USE OR REFER TO FLUX DENSITY IN SATURABLE REACTORS	0	0	0	0	0	0	
N	832	N2-15 DO YOU USE OR REFER TO POINT OF SATURATION IN SATURABLE REACTORS	0	0	0	0	0	0	
N	833	N2-16 DO YOU USE OR REFER TO SATURABLE REACTOR SCHEMATIC SYMBOLS	0	0	0	0	0	0	
N	834	N3-01 DO YOU WORK WITH WAVESHAPING CIRCUITS IN YOUR PRESENT JOB	44	48	29	45	33	33	
N	835	N3-02 DO YOU USE OR REFER TO TRANSIENT INTERVALS	17	17	16	15	17	22	
N	836	N3-03 DO YOU USE OR REFER TO PULSE WIDTH (PW)	51	53	42	52	50	44	WAVESHAPING CIRCUITS
N	837	N3-04 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)	51	53	42	52	50	44	
N	838	N3-05 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY (PRF)	51	54	42	52	50	44	
N	839	N3-06 DO YOU USE OR REFER TO DIFFERENTIATING CIRCUITS	28	29	26	25	50	33	
N	840	N3-07 DO YOU USE OR REFER TO INTEGRATING CIRCUITS	34	36	26	33	50	33	
N	841	N3-08 DO YOU USE OR REFER TO THE CLASSIFICATION OF TIME CONSTANTS (TC) AS LONG, MEDIUM, OR SHORT	37	38	32	37	50	22	
N	842	N3-09 DO YOU DETERMINE WHETHER AN LR OR RC CIRCUIT IS DIFFERENTIATING OR INTEGRATING BASED ON THE TIME CONSTANT	2	2	0	2	0	0	
N	843	N3-10 DO YOU WORK WITH SQUARE WAVE GENERATORS	3	3	0	2	0	0	
N	844	N3-11 DO YOU WORK WITH RECTANGULAR WAVE GENERATORS	1	2	0	2	0	0	
O	845	O1-01 DO YOU WORK ON SINGLE SIDEBAND SYSTEMS IN YOUR PRESENT JOB	1	1	0	1	0	0	
O	846	O1-02 DO YOU INSPECT SSB TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	SINGLE SIDEBAND SYSTEMS
O	847	O1-03 DO YOU CLEAN SSB TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	
O	848	O1-04 DO YOU ALIGN SSB TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	
O	849	O1-05 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	
O	850	O1-06 DO YOU TROUBLESHOOT TO SSB TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	0	
O	851	O1-07 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE SYSTEMS	0	0	0	0	0	0	
O	852	O1-08 DO YOU REMOVE OR REPLACE SSB TRANSMIT OR RECEIVE COMPONENTS	0	0	0	0	0	0	

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                              GPSUM1 PAGE  31

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                                     SPL   SPL   SPL   SPL   SPL   SPL
                       DY-TSK                                                        001   002   003   004   005   006

0 653 01-09 DO YOU PERFORM TASKS ON SSB AUDIO AMPLIFIERS                              0     0     0     0     0     0
0 654 01-10 DO YOU PERFORM TASKS ON SSB BALANCED MODULATORS                           0     0     0     0     0     0
0 655 01-11 DO YOU PERFORM TASKS ON SSB CARRIER OSCILLATORS                           1     1     0     1     0     0
0 656 01-12 DO YOU PERFORM TASKS ON SSB LC FILTERS                                    0     0     0     0     0     0
0 657 01-13 DO YOU PERFORM TASKS ON SSB CRYSTAL FILTERS                               1     1     0     1     0     0
0 658 01-14 DO YOU PERFORM TASKS ON SSB MECHANICAL FILTERS                            1     1     0     1     0     0
0 659 01-15 DO YOU PERFORM TASKS ON SSB OSCILLATORS                                   1     1     0     1     0     0
0 660 01-16 DO YOU PERFORM TASKS ON SSB MIXERS                                        1     1     0     1     0     0
0 661 01-17 DO YOU PERFORM TASKS ON SSB DRIVERS                                       1     1     0     1     0     0
0 662 01-18 DO YOU PERFORM TASKS ON SSB POWER AMPLIFIERS                              1     1     0     1     0     0
0 663 01-19 DO YOU PERFORM TASKS ON SSB RF AMPLIFIERS                                 1     1     0     1     0     0
0 664 01-20 DO YOU PERFORM TASKS ON SSB FREQUENCY CONVERTERS                          1     1     0     1     0     0
0 665 01-21 DO YOU PERFORM TASKS ON SSB IF AMPLIFIERS                                 1     1     0     1     0     0
0 666 01-22 DO YOU PERFORM TASKS ON SSB DEMODULATORS                                  1     1     0     1     0     0
0 667 01-23 DO YOU PERFORM TASKS ON SSB DON'T REMEMBER WHICH SSB                      0     0     0     0     0     0
      SYSTEM STAGES
0 668 01-24 DO YOU USE OR REFER TO SELECTIVE FADING                                   0     0     0     0     0     0
0 669 01-25 DO YOU USE OR REFER TO PEAK POWER                                         1     1     0     1     0     0
0 670 01-26 DO YOU USE OR REFER TO FREQUENCY STABILITY                                1     1     0     1     0     0
0 671 01-27 DO YOU USE OR REFER TO RESPONSE CURVES FOR                                1     1     0     1     0     0
      BANDWIDTH FILTERS
0 672 01-28 DO YOU CALCULATE PEAK POWER OR EFFECTIVE POWER OF SSB                     1     1     0     1     0     0
      TRANSMITTERS
0 673 01-29 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB                         1     1     0     1     0     0
      TRANSMITTER SCHEMATIC DIAGRAMS
0 674 01-30 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH SSB                         1     1     0     1     0     0
      RECEIVER SCHEMATIC DIAGRAMS
0 675 02-01 DO YOU WORK ON PULSE MODULATION SYSTEMS IN YOUR                          11     7    26     9    17    22
      PRESENT JOB
0 676 02-02 DO YOU INSPECT PULSE MODULATION SYSTEMS                                   0     0     0     0     0     0
0 677 02-03 DO YOU CLEAN PULSE MODULATION SYSTEMS                                     0     0     0     0     0     0
0 678 02-04 DO YOU ALIGN PULSE MODULATION SYSTEMS                                     0     0     0     0     0     0
0 679 02-05 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEMS                           0     0     0     0     0     0
0 680 02-06 DO YOU TROUBLESHOOT TO PULSE MODULATION SYSTEM                            1     0     3     0     0     0
      COMPONENTS
0 681 02-07 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEMS                         0     0     0     0     0     0
0 682 02-08 DO YOU REMOVE OR REPLACE PULSE MODULATION SYSTEM                          0     0     0     0     0     0
      COMPONENTS
0 683 02-09 DO YOU WORK ON PULSE-AMPLITUDE MODULATION (PAM)                           1     1     0     1     0     0
      SYSTEMS
0 684 02-10 DO YOU WORK ON PULSE-DURATION MODULATION (PDM)                            1     0     3     1     0     0
      SYSTEMS
0 685 02-11 DO YOU WORK ON PULSE-POSITION MODULATION (PPM)                            0     0     0     0     0     0
      SYSTEMS
0 686 02-12 DO YOU WORK ON PULSE-CODE MODULATION (PCM) SYSTEMS                        1     2     0     1     0     0
0 687 02-13 DO YOU WORK ON LINE PULSING MODULATION SYSTEMS                            0     0     0     0     0     0
0 688 02-14 DO YOU WORK ON DON'T REMEMBER WHICH TYPE OF                               1     1     0     1     0     0
      MODULATION SYSTEM
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PULSE MODULATION SYSTEMS

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                   GPSUM1 PAGE  32

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                             SPL  SPL  SPL  SPL  SPL  SPL
                         DY-TSK                                              001  002  003  004  005  006

0 889 02-15 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        POWER SUPPLIES
0 890 02-16 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        CHARGING CHOKES AND CHARGING DIODES
0 891 02-17 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        PULSE FORMING NETWORKS
0 892 02-18 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        TIMERS
0 893 02-19 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        SWITCHES SUCH AS GAS THYRATRONS
0 894 02-20 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        PULSE TRANSFORMERS
0 895 02-21 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        TRANSMITTER TUBES
0 896 02-22 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM RF                2    2    0    2    0    0
        AMPLIFIERS
0 897 02-23 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   1    2    0    2    0    0
        FREQUENCY CONVERTERS
0 898 02-24 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   2    2    0    2    0    0
        IF AMPLIFIERS
0 899 02-25 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   3    2    3    2    0    0
        DETECTORS
0 900 02-26 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   3    2    3    2    0    0
        VIDEO AMPLIFIERS
0 901 02-27 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   1    1    3    1    0    0
        POWER VIDEO AMPLIFIERS
0 902 02-28 DO YOU PERFORM TASKS ON PULSE MODULATION SYSTEM                   0    0    0    0    0    0
        DON'T REMEMBER WHICH PULSE MODULATION SYSTEM STAGES
0 903 02-29 DO YOU USE OR REFER TO PULSE RECURRENCE FREQUENCY                12    9   26   10   17   22
        (PRF)
0 904 02-30 DO YOU USE OR REFER TO PULSE RECURRENCE TIME (PRT)               12    9   26   10   17   22
0 905 02-31 DO YOU USE OR REFER TO PULSE WIDTH (PW)                          12    9   26   10   17   22
0 906 02-32 DO YOU USE OR REFER TO PULSE SHAPE                               12    8   26   10   17   22
0 907 02-33 DO YOU USE OR REFER TO PEAK POWER                                12    9   26   10   17   22
0 908 02-34 DO YOU USE OR REFER TO AVERAGE POWER                             11    8   23   10   17   22
0 909 02-35 DO YOU CALCULATE PULSE RECURRENCE TIME (PRT) OR PULSE             7    5   16    5   17   22
        RECURRENCE FREQUENCY (PRF)
0 910 02-36 DO YOU MEASURE PULSE RECURRENCE TIME (PRT) OR PULSE               6    4   16    5   17   11
        RECURRENCE FREQUENCY (PRF)
0 911 02-37 DO YOU USE FORMULAS TO CALCULATE AVERAGE POWER OR                 6    5   10    5   17    0
        PEAK POWER OF PULSE MODULATION TRANSMIT SYSTEMS
0 912 02-38 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE               4    2   13    2    0   11
        MODULATION TRANSMITTER SCHEMATIC DIAGRAMS
0 913 02-39 DO YOU TRACE SIGNALS OR CURRENT PATHS THROUGH PULSE               4    1   16    2    0   22
        MODULATION RECEIVER SCHEMATIC DIAGRAMS
0 914 03-01 DO YOU WORK WITH ANTENNAS IN YOUR PRESENT JOB                    24   22   32   21   17   44
0 915 03-02 DO YOU INSPECT ANTENNAS                                           1    1    0    1    0    0
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ANTENNAS

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                    GPSUM1 PAGE  33

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                              SPL  SPL  SPL  SPL  SPL  SPL
                      DY-TSK                                                  001  002  003  004  005  006

0 916 03-03 DO YOU CLEAN ANTENNAS                                               0    0    0    0    0    0
0 917 03-04 DO YOU PHYSICALLY ALIGN ANTENNAS                                    1    1    0    1    0    0
0 918 03-05 DO YOU ELECTRICALLY ALIGN ANTENNAS                                  1    1    0    1    0    0
0 919 03-06 DO YOU TROUBLESHOOT TO ANTENNAS                                     0    0    0    0    0    0
0 920 03-07 DO YOU TROUBLESHOOT TO ANTENNA COMPONENTS                           0    0    0    0    0    0
0 921 03-08 DO YOU REMOVE OR INSTALL ANTENNAS                                   0    0    0    0    0    0
0 922 03-09 DO YOU REMOVE OR REPLACE COMPONENTS OF ANTENNAS                     0    0    0    0    0    0
0 923 03-10 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING                   13   10   23   10   33   33
        REPRESENTATIONS OF E OR ELECTRIC FIELD LINES
0 924 03-11 DO YOU USE OR REFER TO TECHNICAL DATA CONTAINING                   13   10   23   10   33   33
        REPRESENTATIONS OF H OR MAGNETIC FIELD LINES
0 925 03-12 DO YOU DETERMINE THE DIRECTION OF THE MAGNETIC LINES                7    6   10    6   17    0
        IN RELATION TO THE ELECTRIC LINES OF FORCE FOR ANTENNAS
0 926 03-13 DO YOU USE OR REFER TO THE GENERAL RULE THAT                        5    5    6    5   33    0
        ANTENNAS WHICH ARE OF CORRECT LENGTH (HALF-WAVE) ACT AS
0 927 03-14 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS               4    4    3    4   17    0
        WHICH ARE LONGER THAN A HALF-WAVE ACT AS INDUCTIVE LOADS
0 928 03-15 DO YOU USE OR REFER TO THE GENERAL RULE THAT ANTENNAS               3    3    3    3   17    0
        WHICH ARE SHORTER THAN A HALF-WAVE ACT AS CAPACITIVE LOADS
0 929 03-16 DO YOU WORK WITH HERTZ ANTENNAS                                     5    6    0    6    0    0
0 930 03-17 DO YOU WORK WITH MARCONI ANTENNAS                                   2    2    0    2    0    0
0 931 03-18 DO YOU WORK WITH BROADSIDE ARRAYS                                   2    2    3    2   17    0
0 932 03-19 DO YOU WORK WITH END-FIRE ARRAYS                                    1    1    0    1    0    0
0 933 03-20 DO YOU WORK WITH CARDIOID ARRAYS                                    0    0    0    0    0    0
0 934 03-21 DO YOU WORK WITH COLLINEAR ARRAYS                                   3    3    0    3    0    0
0 935 03-22 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC                     5    6    3    6   17    0
        INDUCTION FIELDS WHEN WORKING WITH ANTENNAS
0 936 03-23 DO YOU MEASURE ELECTROMAGNETIC INDUCTION FIELDS OF                  1    1    0    1    0    0
        ANTENNAS
0 937 03-24 DO YOU USE OR REFER TO THE TERM ELECTROMAGNETIC                    10   10    6   10   33    0
        RADIATION FIELDS WHEN WORKING WITH ANTENNAS
0 938 03-25 DO YOU MEASURE ELECTROMAGNETIC RADIATION                            0    0    0    0    0    0
        FIELDS OF ANTENNAS
0 939 03-26 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)               4    3    6    2    0   11
        AND MAGNETIC (H) COMPONENTS IN ANTENNA RADIATION
0 940 03-27 DO YOU USE OR REFER TO THE TIME PHASE OF ELECTRIC (E)               3    2    3    2   17    0
        AND MAGNETIC (H) COMPONENTS IN ANTENNA INDUCTION FIELD
0 941 03-28 ARE ANY OF THE ANTENNAS YOU WORK ON LINEARLY                       21   19   29   19   17   33
        POLARIZED
0 942 03-29 ARE ANY OF THE ANTENNAS YOU WORK ON CIRCULARLY                     19   18   26   18   17   33
        POLARIZED
0 943 03-30 DO YOU MEASURE OR DETERMINE THE POLARITY OF ANTENNAS                9    8   13    9   17   11
        YOU WORK ON
0 944 03-31 DO YOU CONSTRUCT, OR MAKE THE CALCULATIONS                          0    0    0    0    0    0
        NECESSARY TO CONSTRUCT, ANTENNAS OF CORRECT LENGTH FOR
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                              GPSUM1 PAGE  34

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                                  SPL   SPL   SPL   SPL   SPL   SPL
                       DY-TSK                                                     001   002   003   004   005   006

O 945 03-32 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC                  2     2     0     2     0     0
        ELEMENTS
O 946 03-33 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC                  1     1     0     1     0     0
        ELEMENTS SERVING AS DIRECTORS
O 947 03-34 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN PARASITIC                  2     1     6     1     0    11
        ELEMENTS SERVING AS REFLECTORS
O 948 03-35 DO THE ANTENNA ARRAYS YOU WORK WITH CONTAIN DON'T                      6     7     3     7     0     0
        REMEMBER WHAT KIND OF ELEMENTS
O 949 03-36 DO YOU WORK ON UNIDIRECTIONAL ANTENNAS                                13    13    16    11    17    22
O 850 03-37 DO YOU WORK ON BIDIRECTIONAL ANTENNAS                                  6     6     3     6     0     0
O 851 03-38 DO YOU WORK ON DON'T REMEMBER THE DIRECTIONALITY                       3     3     0     3     0     0
O 852 03-39 DO YOU WORK WITH ROTAR ANTENNA ARRAYS                                 10     8    16     8    17    22
P 953 PI-01 IN YOUR PRESENT JOB DO YOU WORK WITH TRANSMISSION                      5     6     0     6     0     0
        LINES (TRANSMISSION LINES ARE DEFINED TO INCLUDE LEADS
P 954 PI-02 DO YOU REFER TO OR USE COPPER LOSS OR I2R LOSS IN                      0     0     0     0     0     0
        TRANSMISSION LINES
P 955 PI-03 DO YOU REFER TO OR USE SKIN EFFECTS OF HIGH FREQUENCY                  0     0     0     0     0     0
        CURRENTS IN TRANSMISSION LINES
P 956 PI-04 DO YOU REFER TO OR USE RADIATION LOSS IN TRANSMISSION                  0     0     0     0     0     0
        LINES
P 957 PI-05 DO YOU USE OR REFER TO DIELECTRIC LOSS IN                              1     1     0     1     0     0
        TRANSMISSION LINES
P 958 PI-06 DO YOU USE OR REFER TO LEAKAGE LOSSES IN TRANSMISSION                  1     1     0     1     0     0
        LINES
P 959 PI-07 DO YOU WORK WITH TWISTED PAIR TRANSMISSION LINES                       1     2     0     2     0     0
P 960 PI-08 DO YOU WORK WITH TWIN LEAD TRANSMISSION LINES                          0     0     0     0     0     0
P 961 PI-09 DO YOU WORK WITH OPEN TWO-WIRE TRANSMISSION LINES                      1     2     0     1     0     0
P 962 PI-10 DO YOU WORK WITH FLEXIBLE COAXIAL CABLE TRANSMISSION                   2     2     0     2     0     0
        LINES
P 963 PI-11 DO YOU WORK WITH RIGID COAXIAL CABLE TRANSMISSION                      2     2     0     2     0     0
        LINES
P 964 PI-12 DO YOU TROUBLESHOOT TRANSMISSION LINES                                 1     2     0     2     0     0
P 965 PI-13 DO YOU ANALYZE VOLTAGE OR CURRENT WAVEFORMS IN                         0     0     0     0     0     0
        TRANSMISSION LINES TO DETERMINE THE TYPE OF TERMINATION
P 966 PI-14 DO YOU SELECT APPROPRIATE TRANSMISSION LINES                           0     0     0     0     0     0
        TERMINATIONS TO ACHIEVE DESIRED WAVEFORMS
P 967 PI-15 DO YOU USE OR REFER TO SCHEMATIC SYMBOLS FOR LINE                      1     1     0     1     0     0
        TERMINATIONS IN TERMS OF CIRCUIT TERMINATIONS
P 968 PI-16 DO YOU MEASURE STANDING WAVE RATIOS (SR) OF                            0     0     0     0     0     0
        TRANSMISSION LINES
P 969 PI-17 DO YOU CALCULATE STANDING WAVE RATIOS (SWR) OF                         1     1     0     1     0     0
        TRANSMISSION LINES
P 970 PI-18 DO YOU PERFORM THE CALCULATIONS NECESSARY TO                           0     0     0     0     0     0
        DETERMINE THE IMPEDANCE AND LENGTH OF QUARTER - WAVELENGTH
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TRANSMISSION LINES

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                  GPSUM1 PAGE  35

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                           SPL  SPL  SPL  SPL  SPL  SPL
                        DY-TSK                                             001  002  003  004  005  006

P 971 P1-19 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED            1    1    0    1    0    0
        TO LOADS USING MATCHING TRANSFORMERS
P 972 P1-20 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED            0    0    0    0    0    0
        TO LOADS USING DELTA MATCHING
P 973 P1-21 DO YOU SELECT THE TYPE OF TRANSMISSION LINE NEEDED               3    4    0    3    0    0
        FOR PARTICULAR JOBS WITHOUT REFERRING TO TECHNICAL DATA
P 974 P1-22 DO YOU USE OR REFER TO THE TERM CHARACTERISTIC                   1    1    0    1    0    0
        IMPEDANCE (Z0) OF TRANSMISSION LINES
P 975 P1-23 DO YOU CALCULATE THE CHARACTERISTIC IMPEDANCE (Z0) OF            1    1    0    1    0    0
        TRANSMISSION LINES
P 976 P1-24 DO YOU USE OR REFER TO THE TERM CUTOFF FREQUENCY OF              1    1    0    1    0    0
        TRANSMISSION LINES
P 977 P1-25 DO YOU USE OR REFER TO THE TERM VELOCITY FACTOR (K)              1    1    0    1    0    0
        OF TRANSMISSION LINES
P 978 P1-26 DO YOU COMPUTE THE ELECTRICAL LENGTH OF TRANSMISSION             1    1    0    1    0    0
        LINES FOR PARTICULAR FREQUENCIES
P 979 P1-27 DO YOU CONSTRUCT TRANSMISSION LINES OF PARTICULAR                0    0    0    0    0    0
        ELECTRICAL LENGTH FOR GIVEN FREQUENCIES
P 980 P1-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT AS THE              0    0    0    0    0    0
        FREQUENCY INCREASES AND THE PHYSICAL LENGTH OF
P 981 P1-29 DO YOU WORK WITH NONRESONANT (FLAT) TRANSMISSION                 0    0    0    0    0    0
        LINES
P 982 P1-30 DO YOU WORK WITH RESONANT TRANSMISSION LINES                     0    0    0    0    0    0
P 983 P1-31 DO YOU WORK WITH TRANSMISSION LINES WHICH ARE MATCHED            0    0    0    0    0    0
        TO LOADS USING STUB MATCHING
P 984 P2-01 DO YOU WORK WITH WAVEGUIDES OR CAVITY RESONATORS IN              2    2    0    2    0    0
        YOUR PRESENT JOB
P 985 P2-02 DO YOU INSPECT WAVEGUIDES OR CAVITY RESONATORS                   0    0    0    0    0    0
P 986 P2-03 DO YOU CLEAN WAVEGUIDES OR CAVITY RESONATORS                     0    0    0    0    0    0
P 987 P2-04 DO YOU BEND WAVEGUIDES OR CAVITY RESONATORS                      0    0    0    0    0    0
P 988 P2-05 DO YOU TWIST WAVEGUIDES OR CAVITY RESONATORS                     0    0    0    0    0    0
P 989 P2-06 DO YOU PRESSURIZE WAVEGUIDES OR CAVITY RESONATORS                0    0    0    0    0    0
P 990 P2-07 DO YOU PURGE WAVEGUIDES OR CAVITY RESONATORS                     0    0    0    0    0    0
P 991 P2-08 DO YOU TROUBLESHOOT WAVEGUIDES OR CAVITY RESONATORS              0    0    0    0    0    0
P 992 P2-09 DO YOU REMOVE OR INSTALL COMPLETE WAVEGUIDES                     0    0    0    0    0    0
P 993 P2-10 DO YOU REMOVE OR INSTALL WAVEGUIDE SECTIONS                      0    0    0    0    0    0
P 994 P2-11 DO YOU REMOVE OR INSTALL DUMMY LOADS                             0    0    0    0    0    0
P 995 P2-12 DO YOU REMOVE OR INSTALL E BENDS                                 0    0    0    0    0    0
P 996 P2-13 DO YOU REMOVE OR INSTALL H BENDS                                 0    0    0    0    0    0
P 997 P2-14 DO YOU REMOVE OR INSTALL OTHER BENDS                             0    0    0    0    0    0
P 998 P2-15 DO YOU REMOVE OR INSTALL CHOKE JOINTS                            0    0    0    0    0    0
P 999 P2-16 DO YOU REMOVE OR INSTALL ROTATING JOINTS                         0    0    0    0    0    0
P1000 P2-17 DO YOU REMOVE OR INSTALL DIRECTIONAL COUPLERS                    0    0    0    0    0    0
P1001 P2-18 DO YOU REMOVE OR INSTALL BIDIRECTIONAL COUPLERS                  0    0    0    0    0    0
P1002 P2-19 DO YOU USE OR REFER TO MAP WALL OF WAVEGUIDES                    0    0    0    0    0    0
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WAVEGUIDES AND CAVITY RESONATORS

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 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                     SPL  SPL  SPL  SPL  SPL  SPL
                          DY-TSK                                     001  002  003  004  005  006

P1003 P2-20 DO YOU USE OR REFER TO "B" WALL OF WAVEGUIDES              0    0    0    0    0    0
P1004 P2-21 DO YOU USE OR REFER TO CUTOFF FREQUENCY OF WAVEGUIDES      0    0    0    0    0    0
P1005 P2-22 DO YOU USE OR REFER TO FREQUENCY-DETERMINING WALL OF       1    1    0    1    0    0
      WAVEGUIDES
P1006 P2-23 DO YOU USE OR REFER TO POWER-DETERMINING WALL OF           0    0    0    0    0    0
      WAVEGUIDES
P1007 P2-24 DO YOU USE OR REFER TO ELECTRIC FIELD BOUNDARY             0    0    0    0    0    0
      CONDITIONS
P1008 P2-25 DO YOU USE OR REFER TO MAGNETIC FIELD BOUNDARY             0    0    0    0    0    0
      CONDITIONS
P1009 P2-26 DO YOU USE OR REFER TO DUPLEXER FIELD BOUNDARY             0    0    0    0    0    0
      CONDITIONS
P1010 P2-27 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST          0    0    0    0    0    0
      WAVEGUIDES ARE MADE WITH A "B" WALL SIZE OF .7 WAVELENGTHS
P1011 P2-28 DO YOU USE OR REFER TO THE GENERAL RULE THAT MOST "A"      0    0    0    0    0    0
      WALLS RANGE FROM .2 TO .5 WAVELENGTHS IN SIZE, WITH .35
P1012 P2-29 ARE YOU CONCERNED WITH THE MATERIAL (SUCH AS BRASS)        0    0    0    0    0    0
      WHICH WAVEGUIDES ARE MADE OF
P1013 P2-30 DO YOU COMPUTE THE LENGTH OF A WAVEGUIDE FOR SPECIFIC      0    0    0    0    0    0
      INSTALLATION
P1014 P2-31 DO YOU USE THE RIGHT HAND RULE TO DETERMINE THE            1    1    0    1    0    0
      DIRECTION OF PROPAGATION, DIRECTION OF "E" FIELD, OR
P1015 P2-32 DO YOU USE OR REFER TO THE TIME PHASE OF PEAK "E" OR       1    1    0    1    0    0
      "H" LINES IN WAVEGUIDES
P1016 P2-33 DO YOU MEASURE THE TIME PHASE OF "E" OR "H" LINES IN       1    1    0    1    0    0
      WAVEGUIDES
P1017 P2-34 DO YOU USE OR REFER TO THE SPACE QUADRATURE OF "E" OR      0    0    0    0    0    0
      "H" LINES IN WAVEGUIDES
P1018 P2-35 ARE HIGH POWER PROBES USED ON WAVEGUIDES OR CAVITY         0    0    0    0    0    0
      RESONATORS YOU WORK WITH
P1019 P2-36 ARE LOW POWER PROBES USED ON WAVEGUIDES OR CAVITY          0    0    0    0    0    0
      RESONATORS YOU WORK WITH
P1020 P2-37 ARE LOOPS USED ON WAVEGUIDES OR CAVITY RESONATORS          0    0    0    0    0    0
      YOU WORK WITH
P1021 P2-38 ARE APERTURES (WINDOWS OR IRISES) USED ON WAVEGUIDES       0    0    0    0    0    0
      OR CAVITY RESONATORS YOU WORK WITH
P1022 P2-39 ARE DON'T REMEMBER THE KIND OF ENERGY COUPLING USED        1    1    0    1    0    0
      ON WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1023 P2-40 DO YOU DETERMINE WHERE PROBES SHOULD BE MOUNTED IN         0    0    0    0    0    0
      WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
P1024 P2-41 DO YOU DETERMINE THE POSITIONING OF LOOPS IN               0    0    0    0    0    0
      WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
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PCT MBRS RESPONDING "YES" BY SELECTED GRPS                                   GPSUM1 PAGE  37

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                    SPL   SPL   SPL   SPL   SPL   SPL
                    DY-TSK                                          001   002   003   004   005   006

P1025 P2-42 DO YOU DETERMINE THE POSITIONING OR SIZE OF APERTURES     0     0     0     0     0     0
      IN WAVEGUIDES OR CAVITY RESONATORS WITHOUT REFERRING TO
P1026 P2-43 ARE CHOKE JOINTS USED IN WAVEGUIDES OR CAVITY             0     0     0     0     0     0
      RESONATORS YOU WORK WITH
P1027 P2-44 ARE ROTATING JOINTS USED IN WAVEGUIDES OR CAVITY          0     0     0     0     0     0
      RESONATORS YOU WORK WITH
P1028 P2-45 ARE DON'T REMEMBER THE KIND OF JOINTS USED IN             2     2     0     2     0     0
      WAVEGUIDES OR CAVITY RESONATORS YOU WORK WITH
P1029 P2-46 DO YOU TUNE CAVITY RESONATORS USING CAPACITIVE TUNING     0     0     0     0     0     0
P1030 P2-47 DO YOU TUNE CAVITY RESONATORS USING INDUCTIVE TUNING      0     0     0     0     0     0
P1031 P2-48 DO YOU TUNE CAVITY RESONATORS USING VOLUME TUNING         0     0     0     0     0     0
P1032 P2-49 DO YOU TUNE CAVITY RESONATORS USING DON'T REMEMBER        1     1     0     1     0     0
      THE METHOD OF TUNING
P1033 P2-50 DO YOU MEASURE THE FREQUENCY OF SIGNALS IN CAVITY         0     0     0     0     0     0
      RESONATORS
P1034 P3-01 IN YOUR PRESENT JOB DO YOU WORK WITH KLYSTRONS,          13    14    13    14     0    22
      TRAVELING WAVE TUBES (TWT), PARAMETRIC AMPLIFIERS, OR
P1035 P3-02 DO YOU USE OR REFER TO INTERELECTRODE CAPACITANCE         1     1     0     1     0     0
P1036 P3-03 DO YOU USE OR REFER TO ELECTRON TRANSIT TIME              1     2     0     2     0     0
P1037 P3-04 DO YOU USE OR REFER TO LEAD INDUCTANCE                    1     2     0     2     0     0
P1038 P3-05 DO YOU USE OR REFER TO RF LOSSES IN EXTERNAL              1     1     0     1     0     0
      CIRCUITRY
P1039 P3-06 DO YOU USE OR REFER TO PRINCIPLE OF ELECTRON VELOCITY     2     2     3     2     0     0
      MODULATION
P1040 P3-07 DO YOU USE OR REFER TO ELECTRON BUNCHING                  2     2     3     2     0     0
P1041 P3-08 DO YOU WORK WITH TWO-CAVITY KLYSTRONS                     4     3     6     3     0    22
P1042 P3-09 DO YOU WORK WITH THREE-CAVITY KLYSTRONS                   5     5     6     5     0    22
P1043 P3-10 DO YOU WORK WITH REFLEX KLYSTRONS                         4     5     3     6     0     0
P1044 P3-11 DO YOU WORK WITH TRAVELING-WAVE TUBES (TWT)               9     9    10    10     0    22
P1045 P3-12 DO YOU WORK WITH NONDEGENERATIVE PARAMETRIC               1     2     0     2     0     0
      AMPLIFIERS
P1046 P3-13 DO YOU WORK WITH UP-CONVERTER PARAMETRIC AMPLIFIERS       1     2     0     2     0     0
P1047 P3-14 DO YOU WORK WITH MAGNETRONS                              12    11    16    12     0    33
P1048 P3-15 DO YOU INSPECT KLYSTRONS OR TWT                           0     0     0     0     0     0
P1049 P3-16 DO YOU CLEAN KLYSTRONS OR TWT                             0     0     0     0     0     0
P1050 P3-17 DO YOU TUNE KLYSTRONS OR TWT ELECTRICALLY                 1     1     0     1     0     0
P1051 P3-18 DO YOU TUNE KLYSTRONS OR TWT MECHANICALLY                 0     0     0     0     0     0
P1052 P3-19 DO YOU PERFORM OPERATIONAL CHECKS OF KLYSTRONS OR         2     2     3     2     0    11
      TWT
P1053 P3-20 DO YOU TROUBLESHOOT KLYSTRONS OR TWT                      0     0     0     0     0     0
P1054 P3-21 DO YOU REMOVE OR REPLACE COMPLETE KLYSTRON OR TWT         0     0     0     0     0     0
P1055 P3-22 DO YOU REMOVE OR REPLACE KLYSTRON OR TWT COMPONENTS       0     0     0     0     0     0
P1056 P3-23 DO YOU INSPECT PARAMETRIC AMPLIFIERS                      0     0     0     0     0     0
P1057 P3-24 DO YOU CLEAN PARAMETRIC AMPLIFIERS                        0     0     0     0     0     0
P1058 P3-25 DO YOU ADJUST PARAMETRIC AMPLIFIERS                       0     0     0     0     0     0
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MICROWAVE AMPLIFIERS AND OSCILLATORS

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                    GPSUM1 PAGE  38

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                       SPL  SPL  SPL  SPL  SPL  SPL
                     DY-TSK                                            001  002  003  004  005  006

P1059 P3-26 DO YOU TUNE PARAMETRIC AMPLIFIERS                            0    0    0    0    0    0
P1060 P3-27 DO YOU PERFORM OPERATIONAL CHECKS OF PARAMETRIC              0    0    0    0    0    0
      AMPLIFIERS
P1061 P3-28 DO YOU TROUBLESHOOT PARAMETRIC AMPLIFIERS                    0    0    0    0    0    0
P1062 P3-29 DO YOU REMOVE OR REPLACE COMPLETE PARAMETRIC                 0    0    0    0    0    0
      AMPLIFIER
P1063 P3-30 DO YOU REMOVE OR REPLACE PARAMETRIC AMPLIFIER                0    0    0    0    0    0
      COMPONENTS
P1064 P3-31 DO YOU INSPECT MAGNETRONS                                    0    0    0    0    0    0
P1065 P3-32 DO YOU CLEAN MAGNETRONS                                      0    0    0    0    0    0
P1066 P3-33 DO YOU ADJUST MAGNETRONS                                     0    0    0    0    0    0
P1067 P3-34 DO YOU TUNE MAGNETRONS                                       1    1    0    1    0    0
P1068 P3-35 DO YOU PERFORM OPERATIONAL CHECKS OF MAGNETRONS              1    1    3    1    0    0
P1069 P3-36 DO YOU TROUBLESHOOT MAGNETRONS                               0    0    0    0    0    0
P1070 P3-37 DO YOU REMOVE OR REPLACE COMPLETE MAGNETRON                  0    0    0    0    0    0
P1071 P3-38 DO YOU REMOVE OR REPLACE MAGNETRON COMPONENTS                0    0    0    0    0    0
P1072 P3-39 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      TWO-CAVITY KLYSTRONS COLLECTOR PLATES
P1073 P3-40 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      TWO-CAVITY KLYSTRONS CATCHER CAVITIES
P1074 P3-41 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      TWO-CAVITY KLYSTRONS CATCHER GRIDS
P1075 P3-42 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           6    6    3    7    0    0
      TWO-CAVITY KLYSTRONS FEEDBACK LOOPS
P1076 P3-43 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      TWO-CAVITY KLYSTRONS DRIFT SPACES
P1077 P3-44 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    0    3    1    0    0
      TWO-CAVITY KLYSTRONS BUNCHER GRIDS
P1078 P3-45 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    0    3    1    0    0
      TWO-CAVITY KLYSTRONS BUNCHER CAVITIES
P1079 P3-46 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           2    2    3    2    0    0
      TWO-CAVITY KLYSTRONS CONTROL GRIDS
P1080 P3-47 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           4    5    3    6    0    0
      TWO-CAVITY KLYSTRONS CATHODES
P1081 P3-48 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      REFLEX KLYSTRON REPELLER (REFLECTOR) PLATES
P1082 P3-49 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           2    2    0    2    0    0
      REFLEX KLYSTRON GRIDS
P1083 P3-50 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      REFLEX KLYSTRON GRID CAVITY GAPS
P1084 P3-51 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           2    2    3    2    0    0
      REFLEX KLYSTRON RESONANT CAVITIES
P1085 P3-52 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      REFLEX KLYSTRON MAGNETIC COUPLING LOOPS
P1086 P3-53 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           1    1    3    2    0    0
      REFLEX KLYSTRON FILAMENTS
P1087 P3-54 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF           4    5    3    6    0    0
      REFLEX KLYSTRON CATHODES
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                              GPSUM1 PAGE  39

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING
                                                                 SPL  SPL  SPL  SPL  SPL  SPL
                      DY-TSK                                     001  002  003  004  005  006

P1088 P3-55 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        REFLEX KLYSTRON OUTPUT LEADS
P1089 P3-56 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        TRAVELING-WAVE TUBES FILAMENTS
P1090 P3-57 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     4    4    3    5    0    0
        TRAVELING-WAVE TUBES CATHODES
P1091 P3-58 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        TRAVELING-WAVE TUBES MODULATOR GRIDS
P1092 P3-59 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        TRAVELING-WAVE TUBES ANODES
P1093 P3-60 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     1    1    3    2    0    0
        TRAVELING-WAVE TUBES HELIXES
P1094 P3-61 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        TRAVELING-WAVE TUBES COLLECTORS
P1095 P3-62 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     2    2    3    2    0    0
        TRAVELING-WAVE TUBES MAGNETS
P1096 P3-63 DO YOU USE OR REFER TO THE OPERATING PRINCIPLES OF     5    6    3    6    0    0
        TRAVELING-WAVE TUBES ATTENUATORS
P1097 P3-64 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE   0    0    0    0    0    0
        CIRCULATORS
P1098 P3-65 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER SIGNAL    0    0    0    0    0    0
        CAVITIES
P1099 P3-66 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER IDLER     0    0    0    0    0    0
        CAVITIES
P1100 P3-67 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER VARACTOR  0    0    0    0    0    0
        DIODES
P1101 P3-68 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER FERRITE   0    0    0    0    0    0
        ISOLATORS
P1102 P3-69 DO YOU PERFORM TASKS ON PARAMETRIC AMPLIFIER REVERSE-  0    0    0    0    0    0
        BIAS BATTERIES
P1103 P3-70 DO YOU PERFORM TASKS ON ANODES                         1    1    0    1    0    0
P1104 P3-71 DO YOU PERFORM TASKS ON ANODE COOLING PINS             1    1    0    1    0    0
P1105 P3-72 DO YOU PERFORM TASKS ON COUPLING LOOPS                 1    1    0    1    0    0
P1106 P3-73 DO YOU PERFORM TASKS ON HEATER LEADS                   1    1    0    1    0    0
P1107 P3-74 DO YOU PERFORM TASKS ON RESONANT CAVITIES              1    1    0    1    0    0
P1108 P3-75 DO YOU PERFORM TASKS ON CATHODES                       3    3    0    3    0    0
P1109 P3-76 DO YOU PERFORM TASKS ON MAGNETS                        1    1    0    1    0    0
Q1110 Q1-01 DO YOU USE OR REFER TO STORAGE REGISTERS              11   14    0   13    0    0
Q1111 Q1-02 DO YOU USE OR REFER TO SHIFT REGISTERS                13   16    0   15    0    0
Q1112 Q1-03 DO YOU USE OR REFER TO LOGIC SYMBOLS OF SHIFT          4    5    0    4    0    0
        REGISTERS
Q1113 Q1-04 DO YOU USE OR REFER TO LOGIC SYMBOLS OF STORAGE        4    5    0    4    0    0
        REGISTERS
Q1114 Q1-05 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF   1    1    0    1    0    0
        SHIFT REGISTERS
Q1115 Q1-06 DO YOU TRACE THE DATA FLOW THROUGH LOGIC DIAGRAMS OF   1    1    0    1    0    0
        OTHER TYPE OF REGISTERS
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REGISTERS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006	
Q1116 G1-07 DO YOU DETERMINE THE STATE OF EACH FLIP-FLOP OF A SHIFT REGISTER AFTER A SPECIFIED NUMBER OF SHIFT PULSES	1	1	0	1	0	0	
Q1117 G2-01 DO YOU WORK WITH DIGITAL COUNTERS, REGISTERS, OR STORAGE DEVICES IN YOUR PRESENT JOB	29	33	13	31	17	0	
Q1118 G2-02 DO YOU USE OR REFER TO DELAY LINES	25	30	3	28	0	0	STORAGE DEVICES
Q1119 G2-03 DO YOU USE OR REFER TO MAGNETIC CORES	21	26	3	25	0	0	
Q1120 G2-04 DO YOU USE OR REFER TO MAGNETIC DRUMS	25	30	6	28	0	0	
Q1121 G2-05 DO YOU USE OR REFER TO MAGNETIC TAPES	19	21	10	20	17	0	
Q1122 G2-06 DO YOU USE OR REFER TO ACCESS TIME OR SPEED OR MEMORY SYSTEMS	22	26	6	25	0	0	
Q1123 G2-07 DO YOU USE OR REFER TO WORD CAPACITY OF MEMORY SYSTEMS	25	30	6	29	0	0	
Q1124 G2-08 DO YOU USE OR REFER TO VOLATILITY OF MEMORY SYSTEMS	6	8	0	7	0	0	
Q1125 G2-09 DO YOU USE OR REFER TO LOGIC SYMBOL OF DELAY LINES	5	6	0	6	0	0	
Q1126 G3-01 IN YOUR PRESENT JOB, DO YOU WORK WITH DIGITAL-TO-ANALOG (D/A) CONVERTERS, ANALOG-TO-DIGITAL (A/D)	9	10	3	10	0	0	
Q1127 G3-02 DO YOU COMPUTE OUTPUT VOLTAGES FOR ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A) CONVERTERS FOR GIVEN INPUT	0	0	0	0	0	0	
Q1128 G3-03 DO YOU USE OR REFER TO THE GENERAL RULE THAT THE COUNT IN ELECTROMECHANICAL DIGITAL-TO-ANALOG (D/A)	1	2	0	2	0	0	DIGITAL TO ANALOG CONVERTERS
Q1129 G3-04 DO YOU COMPUTE ANALOG VOLTAGES FOR GIVEN BINARY COUNTS IN ELECTRONIC DIGITAL-TO-ANALOG (D/A) CONVERTERS	1	2	0	2	0	0	
Q1130 G3-05 DO YOU PERFORM SAMPLE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	1	0	3	0	0	0	
Q1131 G3-06 DO YOU PERFORM HOLD FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	0	0	0	0	0	0	
Q1132 G3-07 DO YOU PERFORM COMPARE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	1	1	3	1	0	0	
Q1133 G3-08 DO YOU PERFORM DIGITIZE FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER CIRCUITS	1	1	3	0	0	0	
Q1134 G3-09 DO YOU PERFORM DON'T REMEMBER WHICH FUNCTION TASKS ON VARIABLE TIME ANALOG-TO-DIGITAL (A/D) CONVERTER	1	1	0	1	0	0	
Q1135 G3-10 DO YOU USE OR REFER TO SAMPLE FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0	
Q1136 G3-11 DO YOU USE OR REFER TO HOLD FUNCTION OF A/D CONVERTERS	0	0	0	0	0	0	
Q1137 G3-12 DO YOU USE OR REFER TO COMPARE FUNCTION OF A/D CONVERTERS	1	1	3	1	0	0	
Q1138 G3-13 DO YOU USE OR REFER TO DIGITAL FUNCTION OF A/D CONVERTERS	1	0	3	0	0	0	
Q1139 G3-14 DO YOU PERFORM ANY TASKS ON MECHANICAL ANALOG-TO-DIGITAL (A/D) CONVERTERS	0	0	0	0	0	0	

PCT MBRS RESPONDING 'YES' BY SELECTED GRPS

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

DY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006	
R1140 R1-01 DO YOU WORK WITH PHANTASTRON CIRCUITRY IN YOUR PRESENT JOB	0	0	0	0	0	0	PHANTASTRONS
R1141 R2-01 IN YOUR PRESENT JOB DO YOU WORK WITH SCHMITT TRIGGER CIRCUITS	0	0	0	0	0	0	SCHMITT TRIGGERS
R1142 R2-02 DO YOU TRACE DATA FLOW THROUGH SCHMITT TRIGGER SCHEMATIC DIAGRAMS	0	0	0	0	0	0	
R1143 R2-03 DO YOU USE OR REFER TO SCHMITT TRIGGER LOGIC SYMBOLS	0	0	0	0	0	0	
R1144 R3-01 IN YOUR PRESENT JOB DO YOU FABRICATE MULTICONDUCTOR CABLES	0	0	0	0	0	0	CABLE FABRICATION
R1145 R3-02 DO YOU FABRICATE COAXIAL CABLES	0	0	0	0	0	0	
S1146 S1-01 IN YOUR PRESENT JOB DO YOU PERFORM ANY TASKS ON VISUAL READOUT SYSTEMS	28	31	13	29	0	11	INPUT/OUTPUT DEVICES
S1147 S1-02 DO YOU PERFORM ANY TASKS ON NIXIE LIGHTS OR NIXIE LIGHT DECODER SYSTEMS	1	1	3	1	0	0	
S1148 S1-03 DO YOU ANALYZE NIXIE LIGHT DECODER SYSTEMS USING BOOLEAN ALGEBRA	0	0	0	0	0	0	
S1149 S2-01 DO YOU WORK WITH PHOTO TUBES IN YOUR PRESENT JOB	4	6	0	5	0	0	PHOTO SENSITIVE DEVICES
S1150 S3-01 IN YOUR PRESENT JOB DO YOU WORK WITH CHOPPER CIRCUITS	0	0	0	0	0	0	SYNCHRONOUS VIBRATIONS (CHOPPER CIRCUITS)
S1151 S3-02 DO YOU MEASURE EXCITATION FREQUENCIES	0	0	0	0	0	0	
S1152 S3-03 DO YOU MEASURE VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	
S1153 S3-04 DO YOU USE OR REFER TO EXCITATION FREQUENCIES	0	0	0	0	0	0	
S1154 S3-05 DO YOU USE OR REFER TO VOLTAGE-CURRENT PHASE RELATIONSHIPS	0	0	0	0	0	0	
S1155 S3-06 DO YOU USE SERVOS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	0	0	0	
S1156 S3-07 DO YOU USE DETECTORS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	0	0	0	
S1157 S3-08 DO YOU USE ERROR SIGNAL DEVICES IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	0	0	0	
S1158 S3-09 DO YOU USE COMPARISON CIRCUITS IN CONJUNCTION WITH CHOPPER CIRCUIT OPERATION	0	0	0	0	0	0	
T1159 T1-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH INFRARED SYSTEMS	0	0	0	0	0	0	INFRARED
T1160 T1-02 DO YOU INSPECT INFRARED SYSTEMS	0	0	0	0	0	0	
T1161 T1-03 DO YOU CLEAN INFRARED SYSTEMS	0	0	0	0	0	0	
T1162 T1-04 DO YOU ADJUST OR CALIBRATE INFRARED SYSTEMS	0	0	0	0	0	0	
T1163 T1-05 DO YOU OPERATE INFRARED SYSTEMS	0	0	0	0	0	0	
T1164 T1-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF INFRARED SYSTEMS	0	0	0	0	0	0	
T1165 T1-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF INFRARED SYSTEMS	0	0	0	0	0	0	
T1166 T1-08 DO YOU TROUBLESHOOT DOWN TO INFRARED SYSTEM COMPONENT PARTS	0	0	0	0	0	0	
T1167 T1-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF INFRARED SYSTEMS	0	0	0	0	0	0	
T1168 T1-10 DO YOU REMOVE OR REPLACE INFRARED SYSTEM COMPONENT PARTS	0	0	0	0	0	0	

TASK GROUP SUMMARY
PERCENT MEMBERS PERFORMING

JY-TSK	SPL 001	SPL 002	SPL 003	SPL 004	SPL 005	SPL 006
T1169 T1-11 DO YOU USE OR REFER TO FAR REGION	0	0	0	0	0	0
T1170 T1-12 DO YOU USE OR REFER TO INTERMEDIATE REGION	0	0	0	0	0	0
T1171 T1-13 DO YOU USE OR REFER TO NEAR REGION	0	0	0	0	0	0
T1172 T1-14 DO YOU USE OR REFER TO MICRON	0	0	0	0	0	0
T1173 T1-15 DO YOU USE OR REFER TO GRAY BODIES	0	0	0	0	0	0
T1174 T1-16 DO YOU USE OR REFER TO BLACK BODIES	0	0	0	0	0	0
T1175 T1-17 DO YOU USE OR REFER TO ABSORPTION	0	0	0	0	0	0
T1176 T1-18 DO YOU USE OR REFER TO SCATTERING	0	0	0	0	0	0
T1177 T1-19 DO YOU USE OR REFER TO ABSOLUTE ZERO	0	0	0	0	0	0
T1178 T1-20 DO YOU PERFORM TASKS ON BLITZ	0	0	0	0	0	0
T1179 T1-21 DO YOU PERFORM TASKS ON TARGET BUTTONS	0	0	0	0	0	0
T1180 T1-22 DO YOU PERFORM TASKS ON ERECTOR LENSES	0	0	0	0	0	0
T1181 T1-23 DO YOU PERFORM TASKS ON OCULAR LENSES	0	0	0	0	0	0
T1182 T1-24 DO YOU PERFORM TASKS ON CORRECTION LENSES	0	0	0	0	0	0
T1183 T1-25 DO YOU PERFORM TASKS ON FILTERS	0	0	0	0	0	0
T1184 T1-26 DO YOU PERFORM TASKS ON SPHERICAL MIRRORS	0	0	0	0	0	0
T1185 T1-27 DO YOU PERFORM TASKS ON PLANE MIRRORS	0	0	0	0	0	0
T1186 T2-01 DOES YOUR PRESENT JOB INVOLVE ANY TASKS DEALING WITH LASERS	0	0	0	0	0	0
T1187 T2-02 DO YOU INSPECT LASER SYSTEMS	0	0	0	0	0	0
T1188 T2-03 DO YOU CLEAN LASER SYSTEMS	0	0	0	0	0	0
T1189 T2-04 DO YOU OPERATE LASER SYSTEMS	0	0	0	0	0	0
T1190 T2-05 DO YOU OPERATE LASER SYSTEMS	0	0	0	0	0	0
T1191 T2-06 DO YOU TROUBLESHOOT WIRE CONNECTIONS OF LASER SYSTEMS	0	0	0	0	0	0
T1192 T2-07 DO YOU TROUBLESHOOT MAJOR ASSEMBLIES OF LASER SYSTEMS	0	0	0	0	0	0
T1193 T2-08 DO YOU TROUBLESHOOT TO COMPONENT PARTS OF LASER SYSTEMS	0	0	0	0	0	0
T1194 T2-09 DO YOU REMOVE OR REPLACE MAJOR ASSEMBLIES OF LASER SYSTEMS	0	0	0	0	0	0
T1195 T2-10 DO YOU REMOVE OR REPLACE COMPONENT PARTS OF LASER SYSTEMS	0	0	0	0	0	0
T1196 T2-11 DO YOU USE OR REFER TO ANGSTROMS (A)	0	0	0	0	0	0
T1197 T2-12 DO YOU USE OR REFER TO ELECTRON ENERGY LEVELS	0	0	0	0	0	0
T1198 T2-13 DO YOU USE OR REFER TO GROUND STATE	0	0	0	0	0	0
T1199 T2-14 DO YOU USE OR REFER TO EXCITED STATE	0	0	0	0	0	0
T1200 T2-15 DO YOU USE OR REFER TO PACKET OF RADIATION	0	0	0	0	0	0
T1201 T2-16 DO YOU USE OR REFER TO PHOTONS	0	0	0	0	0	0
T1202 T2-17 DO YOU USE OR REFER TO SPONTANEOUS EMISSION	0	0	0	0	0	0
T1203 T2-18 DO YOU USE OR REFER TO STIMULATED EMISSION	0	0	0	0	0	0
T1204 T2-19 DO YOU USE OR REFER TO COHERENCE OR INCOHERENCE	0	0	0	0	0	0
T1205 T2-20 DO YOU USE OR REFER TO INVERSION LEVEL	0	0	0	0	0	0
T1206 T2-21 DO YOU USE OR REFER TO MONOCHROMATIC	0	0	0	0	0	0
T1207 T2-22 DO YOU WORK WITH ACTIVE MATERIALS	0	0	0	0	0	0
T1208 T2-23 DO YOU WORK WITH PUMPING SOURCES	0	0	0	0	0	0
T1209 T2-24 DO YOU WORK WITH FULL SILVERED (100% REFLECTIVE) MIRRORS	0	0	0	0	0	0

LASERS

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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                  GPSUM1 PAGE  43

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                       SPL  SPL  SPL  SPL  SPL  SPL
                       DY-TSK                                          001  002  003  004  005  006

T1210 T2-25 DO YOU WORK WITH HALF SILVERED (92% REFLECTIVE)              0    0    0    0    0    0
         MIRRORS
T1211 T2-26 DO YOU WORK WITH HELICAL FLASHTUBES                          0    0    0    0    0    0
T1212 T2-27 DO YOU WORK WITH RUBY                                        0    0    0    0    0    0
T1213 T2-28 DO YOU WORK WITH HELIUM-NEON                                 0    0    0    0    0    0
T1214 T2-29 DO YOU WORK WITH HELIUM-XENON                                0    0    0    0    0    0
T1215 T2-30 DO YOU WORK WITH XENON                                       0    0    0    0    0    0
T1216 T2-31 DO YOU WORK WITH CESIUM-HELIUM                               0    0    0    0    0    0
T1217 T2-32 DO YOU WORK WITH ARGON                                       0    0    0    0    0    0
T1218 T2-33 DO YOU WORK WITH NEODYMIUM IN GLASS                          0    0    0    0    0    0
T1219 T2-34 DO YOU WORK WITH GALLIUM ARSENIDE                            0    0    0    0    0    0
T1220 T3-01 IN YOUR PRESENT JOB DO YOU WORK WITH DISPLAY TUBES,          3    4    0    4    0    0
         SUCH AS DIRECT VIEW STORAGE (DVST) OR MULTIPLE MODE
T1221 T3-02 DO YOU INSPECT DVST OR MMST                                  0    0    0    0    0    0
T1222 T3-03 DO YOU CLEAN DVST OR MMST                                    0    0    0    0    0    0    DISPLAY TUBES
T1223 T3-04 DO YOU ADJUST OR CALIBRATE DVST OR MMST                      1    2    0    2    0    0
T1224 T3-05 DO YOU OPERATE SYSTEMS THAT CONTAIN DVST OR MMST             3    4    0    4    0    0
T1225 T3-06 DO YOU TROUBLESHOOT DVST OR MMST                             0    0    0    0    0    0
         CIRCUITS
T1226 T3-07 DO YOU REMOVE OR REPLACE DVST OR MMST TUBES FROM             0    0    0    0    0    0
         MAJOR ASSEMBLIES OR UNITS
T1227 T3-08 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME          0    0    0    0    0    0
         THE VARIOUS ELEMENTS OF DVST
T1228 T3-09 DO YOU PERFORM TASKS THAT MAKE IT NECESSARY TO NAME          0    0    0    0    0    0
         THE VARIOUS ELEMENTS OF MMST
T1229 T3-10 DO YOU PERFORM TASKS ON FLOOD GUNS                           0    0    0    0    0    0
T1230 T3-11 DO YOU PERFORM TASKS ON WRITE GUNS                           0    0    0    0    0    0
T1231 T3-12 DO YOU PERFORM TASKS ON ATTACK GUNS                          0    0    0    0    0    0
T1232 T3-13 DO YOU PERFORM TASKS ON ERASE GUNS                           0    0    0    0    0    0
T1233 T3-14 DO YOU PERFORM TASKS ON STORAGE GRIDS                        0    0    0    0    0    0
U1234 U1-01 IN YOUR PRESENT JOB, DO YOU PERFORM ANY PROGRAMMING          3    3    3    4    0    0
         TASKS
U12[illegible] -02 DO YOU USE OR REFER TO DECIMAL SYSTEMS                4    3    6    4    0    0    PROGRAMMING
U1[illegible] -03 DO YOU USE OR REFER TO PROGRAMS                        3    2    6    3    0    0
U1237 U1-04 DO YOU USE OR REFER TO HEXIDECIMAL SYSTEMS                   1    0    3    0    0    0
U1238 U1-05 DO YOU USE OR REFER TO 8-4-2-1 SYSTEMS                       1    0    3    0    0    0
U1239 U1-06 DO YOU USE OR REFER TO FOUR SYSTEMS                          1    0    3    0    0    0
U1240 U1-07 DO YOU USE OR REFER TO BINARY SYSTEMS                        4    3    6    4    0    0
U1241 U1-08 DO YOU USE OR REFER TO TIME-SHARING                          3    2    6    3    0    0
U1242 U1-09 DO YOU USE OR REFER TO DATA WORDS                            3    2    6    3    0    0
U1243 U1-10 DO YOU USE OR REFER TO ADDRESS WORDS                         3    2    6    2    0    0
U1244 U1-11 DO YOU USE OR REFER TO ADDRESS/SUBADDRESS                    3    2    6    2    0    0
U1245 U1-12 DO YOU USE OR REFER TO STEERING/INFORMATION                  3    2    6    2    0    0
U1246 U1-13 DO YOU USE OR REFER TO INFORMATION WORDS                     3    2    6    2    0    0
U1247 U1-14 DO YOU PERFORM TASKS ON SINGLE LEVEL PROGRAMMING             1    1    3    1    0    0
U1248 U1-15 DO YOU PERFORM TASKS ON MULTI-LEVEL PROGRAMMING              1    1    3    1    0    0
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PCT MBRS RESPONDING 'YES' BY SELECTED GRPS                                  GPSUM1 PAGE  44

 TASK  GROUP SUMMARY
 PERCENT MEMBERS PERFORMING

                                                                       SPL  SPL  SPL  SPL  SPL  SPL
                   DY-TSK                                              001  002  003  004  005  006

U1249 U1-16 DO YOU PERFORM TASKS ON INPUT DEVICES                        2    2    3    2    0    0
U1250 U1-17 DO YOU PERFORM TASKS ON STORAGE DEVICES                      2    2    3    2    0    0
U1251 U1-18 DO YOU PERFORM TASKS ON ARITHMETIC SECTIONS                  3    2    3    2    0    0
U1252 U1-19 DO YOU PERFORM TASKS ON CONTROL SECTIONS                     2    2    0    2    0    0
U1253 U1-20 DO YOU PERFORM TASKS ON OUTPUT DEVICES                       2    2    0    2    0    0
U1254 U1-21 DO YOU PERFORM TASKS ON POWER SUPPLIES                       1    1    0    1    0    0
U1255 U2-01 DO YOU USE DECIBELS TO EXPRESS AMPLIFICATION AND            62   58   74   60   67   89
         ATTENUATION
U1256 U2-02 DO YOU USE LOGARITHMS TO COMPUTE OUTPUT POWER IN             7    7    6    8    0    0    DB AND POWER RATIOS
         DECIBELS
U1257 U2-03 DO YOU USE LOGARITHMS TO COMPUTE ATTENUATION IN              8    8    6    9    0    0
         DECIBELS
U1258 U2-04 DUMMY TASK TO IDENTIFY INCUMBENTS WHO PERFORMED              6    7    3    8    0    0
         NO TASKS
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	Training

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report summarizes the results of the administration of the Electronic Principles Inventory to airmen assigned to Electronic Warfare Countermeasures Specialty (AFSC 276X1). The report gives a detailed listing of the technical tasks and knowledge needed to perform the jobs within the specialty or career ladder.

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This specialty has the following functions:

Performs technical electronic warfare counter measures functions; and supervises electronic warfare countermeasures activities. Analyzes electronic warfare activities or abnormal external influences. Supervises electronic warfare countermeasures personnel.